

State of Iowa
1971

IOWA DEPARTMENTAL RULES 1971

The permanent rules and regulations of general application promulgated
by the state departments to January 1, 1971.



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PREFACE

This volume is published in compliance with section 14.6(5) of the Code. The rules of the various boards and departments are arranged in alphabetical order, using the names of the departments in general use.

Not all of the rules and regulations promulgated by the state departments have been included. The law specifies "permanent" rules of "general application." (See page following.) Where rules have been omitted by the editor there is a notation indicating where such rules may be obtained.

This volume includes the rules and regulations of the departments filed with the secretary of state prior to January 1, 1971.

The Editors.

PUBLICATION OF DEPARTMENTAL RULES

Section 14.6 of the Code, subsection 5, requires the Code Editor to:

“Prepare the manuscript copy, and cause to be printed by the state superintendent of printing in each year in which a Code is published, a volume which shall contain the permanent rules and regulations of general application, promulgated by each state board, commission, bureau, division or department, other than a court, having statewide jurisdiction and authority to make such rules. The Code editor may omit from said volume all rules and regulations applying to professional and regulatory examining and licensing provisions and any rules and regulations of limited application and temporary rules. The Code editor may make reference in the volume as to where said omitted rules and regulations may be procured.

“This volume shall be known as the Iowa Departmental Rules and any rule printed therein may be cited as.....I.D.R..... giving the year of publication and the page where the particular rule, by number, may be found.

“The Code editor may provide cumulative, semiannual supplements for insertion in the latest published volume and a place shall be provided in the binding of said volume for insertion of such supplements.”

Supplements to the Iowa Departmental Rules are published, as authorized by statute, usually on January 1 and July 1 of each year.

No charge is generally made for these supplements, however, anyone desiring a copy should first contact the Superintendent of Printing, Statehouse, Des Moines, Iowa.

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IOWA

DEPARTMENTAL RULES

1971

ACCOUNTANCY BOARD

CHAPTER 1 ANNUAL REGISTRATION

1.1(116)[8] Fees. Registration fees, payable annually in December, shall be:

For each certified public accountant or public accountant in practice, ten dollars.

For each certified public accountant or public accountant not in practice, five dollars.

For each firm, assumed, associate or corporate name, five dollars.

For applicants who qualify and are registered after July 1 of any year, the fee for the remainder of that year shall be one-half of the annual fee.

1.2(116)[9] Individuals. Any person desiring to engage in the public practice of accountancy in the state of Iowa must secure from the Board of Accountancy a certificate to practice before entering upon such practice. The certificate shall be good through December 31 of the year in which issued. Thereafter, in December of each year, each practitioner must secure an authorization to practice during the immediately ensuing year.

Any person holding a valid and unrevoked certificate as a certified public accountant granted under the laws of this state will be entitled to registration with this board to engage in the practice of public accountancy as a "Certified Public Accountant"; and may use the abbreviation, "C. P. A." in connection with his name. Any person holding a valid and unrevoked certificate as a public accountant granted under the laws of this state will be entitled to registration with this board to engage in the practice of public accountancy as a "Public Accountant" under that designation and no other.

A certificate to practice shall be issued only to the holder of a certificate as certified public accountant (or as public accountant), issued by this state, and only after the applicant has filed with the board a declaration of his intention to practice, together with the annual fees required by law, and has filed with the auditor of state his bond in the sum of five thousand dollars.

Failure to secure a certificate to practice in

any year shall not disqualify a person previously registered from securing a certificate to practice in a future year, provided such person has paid to the board of accountancy the sum of five dollars for each full year during the time he has not been in practice.

1.3(116)[10] Partnerships. Any partnership practicing accountancy in this state may use the designation of and practice as certified public accountants under a firm name, only if it fulfills the following requirements:

1. All partners holding a valid and unrevoked certificate as a certified public accountant, or an equivalent thereof, issued under the laws of any state or territory of the United States or the District of Columbia, or one issued by the governmental authority of a foreign nation; and

2. All partners resident in each office of the firm, wherever located, which undertakes to practice accountancy in Iowa are the holders of certificates as certified public accountants granted under the laws of this state and have received certificates to practice from the Iowa board of accountancy; and

3. All partners, wherever located, having supervisory or other direct responsibility for audits and reports issued by such offices described in paragraph 2 above are the holders of certificates as certified public accountants granted under the laws of this state and have certificates to practice from the Iowa board of accountancy.

Any partnership may use the designation of and practice as public accountants under a firm name in this state, only if all the members of such partnership are duly registered as public accountants or certified public accountants, and have received certificates to practice as such from the Iowa board of accountancy.

1.4(116)[11] Firm, associate, assumed or corporate names. All practitioners, who, in connection with the practice of accountancy, make use of a firm, associate, assumed or corporate name, shall register the same at the time of making application for registration,

but certificates to practice shall be issued only in the names of individuals, and only firms whose members are all certified public accountants shall use such designation in connection with the use of such firm names, provided, however, that hereafter no corporation shall be allowed to practice public accounting in this state unless incorporated therefor prior to April 13, 1929.

Partnership, firm, assumed or associate names shall be registered only when all members thereof are holders of certificates as certified public accountants, or as public accountants, issued by the Iowa board of accountancy.

No firm, assumed, associate or corporate name shall include the name of any individual not interested in the ownership of the firm, except that in the case of the purchase of a going practice from a predecessor firm the purchaser shall have the right to continue the use of the predecessor firm name as provided in the contract of purchase; and no firm, associate, assumed, or corporate name shall be registered under the designation "Certified Public Accountants" unless all of the individuals whose names are included in such firm, associate, assumed or corporate name are or have been the holders of certificates as certified public accountants; provided, however, that nothing in this section shall be construed to prohibit the use of any firm, associate, assumed, or corporate name established prior to April 6, 1929.

[Filed before July 4, 1952; amended
December 15, 1958]

CHAPTER 2 EXAMINATIONS

2.1(116)[12] Qualifications of applicants. In order to be eligible to take the examination for a certificate as a certified public accountant, an applicant must:

1. Be over twenty-one years of age, and
2. Be a resident of the state of Iowa, and
3. Be a citizen of the United States, or have duly declared his or her intention of becoming such citizen, and
4. Be of good moral character, and
5. Be a graduate of a high school having at least a four-year course of study, or, in the opinion of the board, have an equivalent education, or pass a preliminary examination to be given by the board at least thirty days before the regular examination, and
6. Be a graduate of a college or university commerce course with a major in accounting, and have had at least one year's experience as a staff accountant in the employ of a practitioner entitled to registration by the Iowa board of accountancy.

The applicant's claim to college or university credits must be confirmed by an official transcript of credits issued by the institution in question. To establish a major in accounting, the applicant's transcript(s) must reveal a minimum of eighteen semester hours

(or its equivalent in quarter hours) in accounting courses in advance of the elementary year course. In recognizing college and university credits, the Iowa board of accountancy adheres to the standards on which recognition of such credits would be granted by the institutions of higher learning under the jurisdiction of the Iowa state board of regents. Credit obtained for work done in business colleges, in correspondence schools, in "extension universities", or in comparable organizations (all of which are characteristically operated for profit) is not "college or university credit".

In lieu of the college or university course and the one year's experience set forth above, the applicant may substitute three years' continuous practical experience as a public accountant or as a staff accountant, or three years' continuous employment as a field examiner under a revenue agent in charge of the income tax bureau of the treasury department of the United States, or as a field examiner in the auditor's, banking, or insurance departments of the state of Iowa.

2.2(116)[13] Time and place for filing applications. Each candidate must file with the secretary of the board a written application on a form which will be furnished by the secretary on request. The application must be filed not less than forty-five days prior to the date set for examination and must be accompanied by a certified check, post-office money order, or bank draft for the required examination fee.

2.3(116)[14] Examination fee. The statutory examination fee is twenty-five dollars. If the applicant is conditioned on account of failure in one or more subjects, as provided in section 16, he may have four opportunities to complete his examination in the failed subject(s) without further payment of fee except that he will be required to pay any additional expense which is occasioned solely by his re-examination in the failed subject(s). In no case shall the examination fee be refunded, unless, in the discretion of the board, the applicant shall be deemed ineligible for the examination.

2.4(116)[15] Time and place and notice of examinations. Examinations will be held at least once each year in May or November, or both, at the discretion of the board. Notice of the time and place of the examination will be advertised by the board for not less than three consecutive days in each of three daily newspapers published in the state of Iowa, the last publication to be not less than sixty days prior to such examination. Similar notice will be mailed to each candidate whose application to take the examination shall have been filed with the board, and approved by a majority of the members thereof.

2.5(116)[16] Subjects and requirements. Examinations will be held in the following subjects: (1) Theory of accounts, (2) practical

accounting, (3) auditing, (4) commercial law, (5) taxation, and (6) general commercial knowledge. In the several sessions of the examination, these subjects may be combined in any manner deemed proper by the board. The time required for the entire examination will ordinarily be two and one-half days, unless otherwise prescribed by the board, with one-half day devoted to each of the major subjects, theory of accounts, auditing, and commercial law, and two half-days devoted to the major subject, practical accounting. If the candidate passes either the examination in practical accounting, or any two of the examinations in theory of accounts, auditing or commercial law, and has grades of not less than fifty in the failed subjects, he may be conditioned and may complete his examination in the failed subject or subjects at any one or all of the next four succeeding examinations. If he is successful in passing the examination in the failed subject(s) at either of the subsequent examinations indicated, he shall be deemed to have passed the entire examination and shall be entitled to receive the certificate. If the candidate fails to remove his condition in the specified time, his credits shall lapse and he shall be required to sit for the examination in all subjects at his next examination thereafter.

2.6(116)[17] Conduct of examinations. Examinations may be conducted in co-operation with the American Institute of Accountants or set independently by the Iowa board of accountancy. When examinations are conducted in co-operation with the American Institute of Accountants, they will be held simultaneously with those held in other states co-operating with the institute.

Each candidate will receive from the secretary (or from his representative) a numbered identification card and envelope. Before commencing his examination, the candidate will sign his name and indicate his address on this card which will then be sealed in the envelope and returned to the examiner in charge. Thereafter, the candidate will be known in the examination by his identification number and he shall place this number on every sheet containing computations for or answers to the examination questions. Under no circumstance shall a candidate place his name, initials, or any identifying mark other than his assigned number on any of his examination papers. Failure to comply with this rule shall be deemed misconduct sufficient for rejecting the candidate's papers.

If any candidate shall bring into the examination room any books, printed or written matter of a character tending to assist the applicant, or shall exchange any information or assistance with another applicant, any such action will be considered misconduct and shall be sufficient cause for rejecting his papers.

All supplies necessary for the examination will be furnished by the board and, after use, shall remain the property of the board. Answers in all examinations must be presented

on blanks furnished by the board and must be completed within the time allotted for each paper by the board.

All examinations shall be in writing. The writing may be in ink or in pencil and must be legible. The board will not be responsible for the misconstruing of any writing which may be difficult to decipher.

The examination questions are the property of the board, but may be retained by the candidate with the board's permission.

The secretary will communicate in writing to each candidate the decisions reached by the board in his case, and shall state the grade received by the candidate on each paper or subject. In no event will any information concerning a candidate's answers be given to anyone other than the candidate himself nor will any of the candidate's papers be accessible for inspection at any time or by any persons except members of the board.

Three years after an examination the answers will be destroyed in a manner determined by a majority of the board.

2.7(116)[18] Certificates. A certificate shall be issued only after a candidate's examination performance has received the approval of this board through the affirmative votes of a majority of its members.

[Filed before July 4, 1952; amended June 29, 1959]

CHAPTER 3 REGISTRATION OF FOREIGN CERTIFICATES

3.1(116)[19] Qualification for issuance. The board is empowered to register the holders of unrevoked certified public accountants' certificates granted by other states or of equivalent certificates granted by the recognized authority of foreign countries, provided:

1. That the applicant is a citizen of the United States, or has declared his or her intention of becoming such.

2. That the applicant holds a valid and unrevoked certificate as a certified public accountant or an equivalent thereof, issued under the laws of any state or territory of the United States or the District of Columbia, or one issued by the governmental authority of a foreign nation (hereinafter called state), showing that the holder thereof has complied with the laws of such state.

3. That the requirements for a certificate as a certified public accountant or its equivalent in the state which has granted it to the applicant are, in the opinion of the board, equivalent to those established by the laws of Iowa and the rules of this board for the issuance of a certificate as a certified public accountant.

4. That the applicant received his certificate as a certified public accountant or its equivalent of the state with which reciprocity is requested, as a result of a regular written examination held within said state, or

5. That the applicant shall have been in continuous practice thereunder for at least seven years prior to the date of application, and

6. That the state issuing the original certificate extends similar privileges to certified public accountants of Iowa and on the same terms.

3.2(116)[20] Applications for registration certificates. Each application for a registration certificate must be made on an official form to be furnished by the board on request, and must be accompanied by:

1. Official or certified copies of the laws of the state in which the applicant obtained his certificate as a certified public accountant, and of the rules and regulations of the board of examiners of such state, in effect both at the time he took the examination and at the date of application.

2. An official statement from the board of examiners of such state to the effect that the applicant's certificate is in full force and effect and unrevoked, and that he is in good standing.

3. An official statement from the board of examiners of such state that such board extends similar privileges to certified public accountants of Iowa and on the same terms.

4. A certified check, post-office money order, or bank draft for the required fee of twenty-five dollars.

Each application will be considered on its merits. The board specifically reserves the right to dispose of any application in such manner as, in its judgment, is warranted by the evidence, in the given case. In the event that an application is denied, the entire fee of twenty-five dollars will be refunded by the board to the applicant.

[Filed November 19, 1954]

CHAPTER 4 TEMPORARY ACCOUNTING ENGAGEMENTS

4.1(116)[21] Nonregistered certified public accountants. The holder of a certified public accountant's certificate, granted by another state, who has neither office nor legal address in the state of Iowa, may practice in this state in connection with temporary engagements incident to his professional practice in the state of his domicile, provided he shall file, at least five days before commencing work for his client, with the board of accountancy and with the auditor of state the written appointment of a registered practitioner of this state, accompanied by a power of attorney, upon whom legal service may be had in all matters which may arise from such temporary professional accounting engagements, to act as his agent. The appointment of an agent may be temporary to cover a single engagement, in which case the application must state the name and address of the client for whom work is to be done, or the appointment may be made permanent by so designating in the applica-

tion. If a permanent agent is appointed, the appointee must advise both the board and the auditor of state, in writing, at the time each assignment is begun, of the name and address of the client and the name and address of such permanent agent.

[Filed before July 4, 1952]

CHAPTER 5 REVOCATION OR SUSPENSION OF CERTIFICATES AND REGISTRATIONS

5.1(116)[22] Grounds for revocation. The certificate of any certified public accountant or public accountant, issued by the state of Iowa, shall be revoked, and any certificate to practice shall be canceled if the holder or registrant:

1. Shall be convicted of a felony, or

2. Shall be convicted of any lesser offense involving dishonesty or fraud, or

3. Has been principal or accessory to the issuance or certification of false or fraudulent financial or related statements, or

4. Has obtained registration and a certificate to practice or either by means of false statements or misrepresentation.

5.2(116)[23] Grounds for suspension. The certificate of any certified public accountant or public accountant or any certificate to practice issued by the state of Iowa may be suspended upon proof that the holder thereof has been guilty of unprofessional or unethical conduct in connection with the practice of accountancy. Such suspension shall be for such period of time not exceeding one year, as, in the discretion of the board shall be deemed appropriate.

5.3(116)[24] Hearings. Written notice of the cause of such contemplated action and bill of particulars thereof, and the time and place for the hearing thereon, will be mailed to the holder of such certificate or to such registrant at his or her last known address at least twenty days prior to the date fixed for such hearing.

The board may adjourn such hearing from time to time, upon the request of the party charged, for the purpose of a fair hearing and the certificate holder shall have the right to be represented by counsel.

All hearings, as herein provided, shall be before the full board and a two-thirds vote of the members thereof shall be required before any cancellation, revocation, or suspension shall be ordered.

5.4(116)[25] Failure to pay annual fees. The failure to pay any of the annual fees herein provided on or before December 31 of each year shall result in the automatic cancellation of the certificate to practice and may be cause for the suspension of the certificate held by any certified public accountant or public accountant. The certificate to practice so canceled and the certified public accountant or public accountant certificate so suspended shall not be reinstated until all fees provided by law have been paid together with the amount of such default or arrears.

[Filed before July 4, 1952]

CHAPTER 6
RULES OF PROFESSIONAL CONDUCT

6.1(116)[26] Rules of professional conduct.

1. The preparation and certification of exhibits, statements, schedules or other forms of accountancy work containing an essential misstatement of fact or omission therefrom of such a fact as would amount to an essential misstatement or a failure to put prospective investors or creditors on notice in respect of an essential or material fact not specifically shown in the statements themselves shall be cause for such disciplinary action as the board of accountancy may impose under the provisions of law upon proper presentation of proof that such misstatement was either willful or the result of such gross negligence as to be inexcusable.

2. No practitioner shall certify to any statements, accounts, exhibits, schedules, or other results of accounting engagements which have not been verified entirely under his own supervision or that of a member of his firm or staff, or that of a practitioner duly registered with the Iowa board of accountancy or with a similar board in another state or in a foreign country.

3. No registered practitioner shall render or offer to render professional service, the fee for which shall be contingent upon his findings and the results thereof, except such income tax work as is permitted by the committee on enrollment and disbarment of the treasury department on a contingent fee basis.

4. Competitive bidding is deemed to be detrimental to the interests of the public and the accounting profession. No registered practitioner shall at any time knowingly, directly or indirectly, enter into bidding for any type of professional service whatsoever, in competition with other accountants. Competitive bidding is hereby defined as bidding for work on any basis in competition with other accountants.

5. No practitioner, while duly registered to practice, shall engage in any business or occupation conjointly with that of a public accountant which in the opinion of the board of accountancy is incompatible or inconsistent therewith.

6. No duly registered practitioner shall directly or indirectly allow or agree to allow a commission, brokerage or other participation by the laity in the fees or profits of his professional work, nor shall he accept directly or indirectly from the laity any commission, brokerage or other participation for professional or commercial business turned over to others as an incident of his services to clients.

7. No practitioner shall allow any person to practice accountancy in his name who is not a practitioner duly registered with the board of accountancy or who is not in his employ on a regular compensation.

No practitioner shall operate any branch office unless he shall have in charge of such

branch office a duly registered practitioner, resident of the community wherein such branch office is located.

8. No practitioner duly registered with the board of accountancy shall directly or indirectly solicit the clients or encroach upon the business of another registered practitioner, but it is the right of any practitioner to give proper service and advice to those asking such service or advice.

9. No practitioner shall directly or indirectly offer employment to an employee of a fellow practitioner duly registered with the board of accountancy without first informing said fellow practitioner of his intent. This rule shall not be construed to prevent negotiations with any one who of his own initiative or in response to public advertisement shall apply to such registered practitioner for employment.

10. No registered practitioner shall advertise his or her professional attainments or service through the mails, in the public prints, by circular letters or by other written word except that a practitioner may cause to be published in the public prints what is technically known as a card. A card is hereby defined as an advertisement of the name, title (such as C. P. A. or public accountant), class of service, and address of the advertiser, without any further qualifying word or letters, or in the case of announcement of change of address or personnel of firm, the plain statement of the fact for the publishing of which the announcement purports to be made. Cards permitted by this rule when appearing in newspapers shall not exceed two columns in width and three inches in depth; when appearing in magazines, directories, and similar publications, cards shall not exceed one-fourth page in size. This rule shall not be construed to inhibit the proper and professional dissemination of impersonal information or the properly restricted circulation of firm bulletins containing staff personnel and professional information.

Nothing in this rule, or in subrule 8, shall be construed to prohibit the making in the public press or through the mails (or both) of a single announcement, otherwise conforming to the rules of the board, of an individual's or firm's initial opening of a practice office in a city or town.

11. The mailing by registered practitioners of circulars, letters, pamphlets, or other printed or written matter to persons not clients of such registered practitioners which contain no direct solicitation of employment but which do include the name and a description of the practice and address of such registered practitioner, or the distribution to persons not clients of the registered practitioner, of circulars or pamphlets advertising any business, educational, or social institution, or organization, which circular or pamphlet contains a card or advertisement of the practice of such registered practitioner, shall be construed as advertising under this rule.

12. No practitioner duly registered with the board of accountancy shall use any letters as the abbreviation of any words constituting a title or description of accountancy qualifications in conjunction with his name except the abbreviation C.P.A., which may be used only by certified public accountants.

13. A registered practitioner shall not permit his name to be associated with statements purporting to show financial position or results of operations in such a manner as to imply that he is acting as an independent

public accountant unless he shall: (1) Express an unqualified opinion, or (2) express a qualified opinion, or (3) disclaim an opinion on the statements taken as a whole and indicate clearly his reasons therefor, or (4) when unaudited financial statements are presented on his stationery without his comments, disclose prominently on each page of the financial statements that they were not audited. [Filed July 4, 1951; amended November 19, 1954, January 17, 1956, August 11, 1958, June 1, 1959]

ADJUTANT GENERAL

CHAPTER 1

FORMS FOR MILITARY PROCESS

1.1(29B) The following forms are prescribed by the adjutant general of Iowa pursuant to the provisions of chapter 29B of the Code and shall be used by all military courts in the issuance of all process, including writs and warrants necessary and proper to carry into full effect the powers vested in such courts. Such process may be directed to appropriate military personnel, the sheriff of any county or any other peace officer of the state. It shall be the duty of all persons to whom such process may be so directed to execute the same and make return of their acts thereunder according to the requirements of the same.

The keepers and wardens of all city or county jails and of all other jails, penitentiaries or prisons, designated by the governor or the adjutant general of the state, shall receive the bodies of persons committed by such process of a military court and confine them in the manner provided by law for civilian offenders.

1.1(1) Form of warrant of arrest.

STATE OF IOWA—NATIONAL GUARD WARRANT FOR ARREST OF DEFENDANT.

(Summary—Special—General) Court-Martial No.

To: (Military Official, Sheriff, or Peace Officer)

having disobeyed an order in writing from the convening authority of the above Court to appear before said Court, a copy of the said charge or charges having been delivered to the accused with such order, you are therefore, in accordance with chapter 29B of the Code, commanded to arrest and bring him forthwith before this Court, or hold him for said Court by delivering him into the custody of the Sheriff of County.

The said has been charged with

(President—Summary Court Officer)

RETURN

Received the within Warrant the day of 19....

at and executed by at on 19....

1.1(2) Form of judgment and commitment.

STATE OF IOWA—NATIONAL GUARD JUDGMENT AND COMMITMENT

Court-Martial No.

STATE OF IOWA vs

On this day of 19...., the defendant herein was tried by Court-Martial on the charge of

and the Court has entered a finding of guilty (and the defendant has pleaded guilty of such charge).

It is adjudged that the defendant is hereby committed to the custody of for imprisonment for a period of

The (Summary Court-Martial) (Special Court-Martial) convened at

(General Court-Martial) imposed a sentence upon said defendant by fining him the sum of \$.... and the defendant is in default on the payment of said fine, and it is therefore adjudged that defendant for the said default be hereby committed to the custody of for a period of

Therefore, under the provisions of chapter 29B of the Code, you are hereby directed to take into custody the person of the said and confine him to the (County or City) Jail of County, therein to be confined in accordance with the sentence aforesaid and for so doing this shall be sufficient warrant.

I, (Summary Court Officer) (President) certify that the above judgment is a true and correct copy of the record thereof.

RETURN

I have executed the within judgment and commitment as follows: Defendant delivered on to

Defendant noted appeal on
Defendant released on

1.1(3) Form of subpoena.

STATE OF IOWA—NATIONAL GUARD

SUBPOENA
STATE OF IOWA SS
COUNTY OF

The State of Iowa to

You are hereby commanded to appear before the Court-Martial of the State of Iowa, at 9:00 O'Clock A.M. on the day of 19....., to give evidence in a case between the State of Iowa, Plaintiff, and Defendant, on the part of the said and this you shall in nowise omit, under penalty of the law.

Witness my hand hereunder affixed at Iowa this day of 19.....

(Summary Court Officer—President)

RETURN

I received the within subpoena the day of 19....., and served the same on the following witnesses by reading and showing the original to each of them and delivering to each of them a copy thereof; all done in County, Iowa.

BY: Deputy

1.1(4) Form of subpoena—duces tecum.
SUBPOENA—DUCES TECUM
STATE OF IOWA, COUNTY, SS.

The State of Iowa to

You are hereby commanded to appear before the Court-Martial of the State of Iowa, at 9:00 O'Clock A.M. on the day of 19....., to give evidence in a case between the State of Iowa, Plaintiff, and Defendant, on the part of said and that you have then with you

and this you shall in nowise omit, under penalty of the law.

Dated this day of 19.....

RETURN

Received the within subpoena the day of 19....., and served the same on the following witnesses by reading and showing the original to each of them and delivering to each of them a copy thereof; all done in County, Iowa.

BY: Deputy

These rules are intended to implement chapter 29B, Code of Iowa.

[Filed August 6, 1963; amended November 27, 1965]

AGRICULTURE DEPARTMENT

ANIMAL INDUSTRY DIVISION

CHAPTER 1

LIVESTOCK DISEASES

1.1(163) Whenever any person, or persons who shall have knowledge of the existence of any infectious or contagious disease, as defined by section 163.2 of the Code, such disease affecting the animals within the state or resulting in exposure thereto, which may prove detrimental to the health of the animals within the state; it shall be the duty of such person, or persons, to report the same in writing to the Chief, Division of Animal Industry, State Capitol Building, Des Moines, Iowa 50319 or to his authorized representative, who shall then take such action as deemed necessary, for the suppression and prevention of such disease.

[Filed March 12, 1962]

1.2(163) Whenever the chief of division of animal industry shall have knowledge of an outbreak of any contagious, infectious, or communicable disease among domestic animals in the state, he shall take such action as he deems necessary for the prevention and suppression of such disease, and is authorized to establish, enforce, and maintain such quar-

antine regulations as he may deem necessary and for such purpose is authorized and empowered to call to his assistance any peace officer to aid him in the prosecution and performance of his duties.

1.3(163) Whenever notice is given to the trustees of a township or to a local board of health, that animals are suspected of being affected with or having been exposed to any contagious, infectious, or communicable disease they may impose such restrictions as deemed necessary to prevent the spread of the disease. It shall be the duty of such township trustees or local boards to immediately notify the chief of division of animal industry.

1.4(163) An animal must be considered as "exposed" when it has stood in a stable with, or been in contact with any animal known to be affected with a contagious, infectious, or transmissible disease; or if placed in a stable, yard, or other enclosure where such diseased animal or animals have been kept unless such stable, yard, or other enclosure has been thoroughly cleaned and disinfected after containing animals so affected.

1.5(163) No attenuated or live culture vaccine or virus shall be sold or offered for sale

at retail except to a licensed veterinarian of this state, nor shall it be administered to any livestock or poultry except by a licensed veterinarian of the state of Iowa. This does not apply to the sale of and administration of virulent hog-cholera virus when sold to and administered by valid permit holders for its use on hogs owned by themselves on their own premises.

1.6(163) No person owning or having the care or custody of any animal affected with glanders or farcy, or which there is reason to believe is affected with said disease, shall lead, drive, or permit such animal to go on or over any public grounds, unenclosed lands, street, road, public highway, lane, or alley; or permit such animal to drink at any public watering trough, pail, or spring, or keep such diseased animal in any enclosure in or from which such diseased animal may come in contact with, or in proximity to, any animal not affected with such disease.

1.7(163) Whenever any animal affected with glanders dies or is destroyed the carcass of such animal shall be burned immediately.

As glanders is transmissible to human beings great care must be exercised in handling diseased animals or carcasses.

1.8(163) It shall be the duty of the chief of division of animal industry to maintain quarantine on all animals affected with glanders until such animals have been destroyed by consent of the owner or otherwise, and carcasses disposed of in accordance with 1.7 (163) and the premises where the same have been kept thoroughly cleaned and disinfected.

1.9(163) In suspected cases of glanders and farcy the most efficient field test is the intrapalpebral mallein test, and as valuable aids to diagnosis the mallein Strauss' agglutination and precipitation tests shall be recognized.

1.10(163) Upon the appearance of an outbreak of blackleg on any premises all calves and yearlings on the premises should be promptly immunized. All carcasses of animals dead of blackleg must be burned intact without removal of the hide. Such carcasses may be disposed of by removal within twenty-four hours by the operator of a regularly licensed rendering plant, or his employees. In the event that the owner of any animal dead from blackleg neglects or refuses to make such disposition of the carcass or carcasses as indicated above, then in such cases the disposal shall be handled in accordance with 1.115 (163) of these rules.

1.11(163) It shall be the duty of any city or local board of health or township trustees whenever notice is given of animals being affected with rabies, glanders, scabies, hog cholera, or any contagious or infectious disease or having been exposed to the same, to promptly notify the chief of division of animal industry.

1.12(163) Whenever rabies is known to exist in any community it shall be the duty of all owners of dogs or other exposed animals to immediately confine such dogs or animals securely to prevent them from spreading the infection should they develop the disease.

1.13(163) When quarantine is established in any community on account of the existence of rabies all dogs not confined or muzzled shall be promptly destroyed.

1.14(163) Whenever the chief of division of animal industry shall have knowledge of any horses, cattle, sheep, or swine affected with scabies or mange it shall be his duty to place such animals in quarantine and require owners to dip such animals at such intervals and in such dips as the case may require.

1.15(163) The secretary of agriculture hereby recommends that all private and farm premises shall be cleaned up between April 15 and May 15 of each year by removing all litter, manure, cobs, and other waste accumulations; such products being spread upon the land as fertilizer or burned, that the health of the people and the livestock may be protected from any contagion or infection that may have existed on the premises. On any premises where any infectious or communicable diseases may have been known to exist, a thorough disinfection shall be required after cleaning.

1.15(1) All municipal officers, township trustees, county agents, inspector of the bureau of animal industry, physicians, and veterinarians in Iowa are requested to use their influence in advising and assisting the people in carrying out the provisions of this rule.

1.15(2) Barns, stables, hog and poultry houses: First, sweep ceilings, walls, and floors removing all cobwebs, dust and litter; then clean out all manure, litter, hay and fodder from mangers and floors, scraping all permanent feed boxes, mangers, walls and floors. Finally, thoroughly spray ceilings, walls, partitions, feed boxes, and mangers with a three percent solution of compound cresol U.S.P.

1.15(3) Pens and yards: Remove all manure, litter, cobs, and other waste material; then thoroughly spray with a three percent solution of compound cresol U.S.P. and scatter lime over floors and yards.

1.16(163) It shall be the duty of the chief of division of animal industry to supervise the disinfection of all buildings, stalls, and pens at the state fairgrounds just prior to the opening of such fair and to supervise the disinfecting daily of hog pens and such other enclosures as he may deem necessary.

1.17(163) It shall be the duty of all secretaries of all county fairs or exhibitions of livestock in the state of Iowa, excepting the Iowa state fair, to supervise the disinfecting of all buildings, stalls and pens prior to the

opening of such county fair or exhibition of livestock and to disinfect hog pens and all such enclosures as he may deem necessary, daily, during such fairs and exhibitions.

1.18(163) All cattle and swine presented for exhibition at the Iowa state fair, or any fair or exhibition within the state of Iowa, will be considered under quarantine and not eligible for showing until the owner or agent presents the proper health certificate stating the animals comply with the following rules. Official health certificates must be presented to and approved by the veterinary inspector in charge of the fair or exhibition before time of showing.

1.19(163) All female cattle and bulls shall be identified as originating from herds, all animals of which were negative to the last tuberculin test and applied within one year. If such cattle are not of this classification, they shall have proved negative to a tuberculin test applied within sixty days prior to the opening date of such fairs or exhibition before time of showing.

1.19(1) All breeding and dairy cattle over six months of age must have passed a negative test for Bang's disease (brucellosis) within sixty days prior to the opening date of the fair, except such cattle as originate in herds designated and certified by the proper livestock sanitary authorities of the state of origin as Bang's disease (brucellosis) accredited herds. The blood samples must have been drawn by a licensed accredited veterinarian and tested by an approved laboratory and certified to by the livestock sanitary official of the state of origin.

1.19(2) Steers need not be tested but must be accompanied by a health certificate showing them to be free from symptoms of infectious and contagious diseases as determined by a clinical inspection.

1.19(3) Vaccinates. Calves vaccinated against Bang's disease (brucellosis) between the ages of four and eight months with brucella-abortus vaccine strain number nineteen and were negative to an agglutination test within twenty days prior to date of vaccination, will be accepted without additional test up to thirty-eight months of age, provided said vaccination was applied and blood sample drawn by a licensed accredited veterinarian and properly reported by him. The agglutination test on these blood samples must have been made by a recognized laboratory.

a. Calves vaccinated against Bang's disease (brucellosis) between the ages of four and eight months with brucella-abortus vaccine strain number nineteen and without the benefit of a pretest, will be accepted without additional test up to twenty-four months following date of vaccination, provided said vaccination was applied by a licensed accredited veterinarian and properly identified and reported by him.

b. All such cattle vaccinated after July 4, 1947, must be identified with a regulation tattoo mark.

1.20(163) All swine must be accompanied by a certificate showing that they have been immunized with anti-hog-cholera serum and hog cholera virus not less than twenty-one days or when serum alone is used not more than fifteen days prior to the opening date of such fair or exhibition.

1.20(1) Swine accompanied by a health certificate stating that they have been vaccinated by a licensed graduate veterinarian with any of the vaccines recognized by the Chief, U. S. Bureau of Animal Industry, Washington, D. C., for the prevention of hog cholera, not less than twenty-one days nor more than twelve months will be eligible to enter any fair or exhibition.

1.21(163) All railroad and transportation companies are hereby required to provide for proper drainage of all stockyards, pens, alleyways, and chutes, and to clean and disinfect the same between April 15 and May 15 of each year, and at such other times as may be deemed necessary. All expense incurred for the disinfecting and supervision of same must be paid by the railroad company. The chief of the division of animal industry shall enforce this rule.

1.22(163) It is hereby ordered by the state of Iowa, secretary of agriculture that all cars or vehicles that have been used for conveying any animal or animals that have been found to have suffered or are suffering from any contagious or infectious diseases must be cleaned and disinfected thoroughly before leaving the yards where such animal or animals have been unloaded within the state of Iowa.

1.23(163) All stock cars and trucks used for hauling livestock (cattle, horses, sheep, and swine) for feeding, breeding, or stock purposes into the state of Iowa must be cleaned and disinfected before such shipments of livestock are loaded.

1.24(163) The term "quarantine" shall be construed to mean the perfect isolation of all diseased or suspected animals from contact with other animals as well as the exclusion of other animals from yards, stables, enclosures, or grounds where suspected or diseased animals are or have been kept.

1.25(163) The department of agriculture hereby authorizes and directs the chief of division of animal industry to co-operate with the bureau of animal industry, United States department of agriculture, in all regulations for the prevention, control, and eradication of contagious and infectious diseases among domestic animals in the state of Iowa.

1.26(163) Reserved for future use.
[Filed June 3, 1955; amended March 12, 1962]

INTRASTATE MOVEMENT OF LIVESTOCK

1.27(163) General. All places where livestock is assembled, either bought or sold for purposes other than immediate slaughter, whether by private sale or public auction, when not under federal supervision must be under state supervision.

1.27(1) The management of all livestock auction markets shall make application for, and obtain a permit from the department to conduct such sales.

1.27(2) Before movement, the livestock shall comply with requirements as set forth below.

1.27(3) Livestock imported for resale shall meet all health requirements governing their admission into the state as set forth in chapter 3 of the rules.

1.28(163) Veterinary inspection.

1.28(1) All livestock markets shall be under the general supervision of the Chief, Division of Animal Industry, Des Moines, Iowa 50319, and the direct supervision of the approved veterinary inspector. State-federal approved markets shall pay veterinary inspection fees directly to the department of agriculture and the department shall reimburse the veterinary inspector. All other markets shall pay inspection fees directly to the veterinary inspector.

1.28(2) The veterinary inspector shall:

- a. Examine all livestock moving through the market,
- b. Prohibit the sale of any animal which in his opinion is diseased,
- c. Issue quarantines when required, and
- d. Supervise the cleaning and disinfection of yards following sales.

1.29(163) Swine.

1.29(1) Swine known to be exposed to any infectious or contagious disease shall not be sold at a public sale. Swine infected with rhinitis, bull nose or arthritis may be sold at the end of the hog sale to move direct to slaughter on an affidavit or may be returned to the farm of origin under quarantine for later movement to slaughter.

1.29(2) All swine consigned for sale, except when sold for immediate slaughter or for the manufacture of biological products, must meet the following requirements relative to hog cholera vaccination:

a. Vaccinated not less than twenty-one days nor more than one year prior to sale with modified live virus and anti-hog-cholera serum or anti-body concentrate, or

b. Vaccinated not less than twenty-one days nor more than six months with killed vaccine, or

c. Unvaccinated swine to be vaccinated on market premises by veterinary inspector with modified live virus and anti-hog-cholera serum or anti-body concentrate and placed under twenty-one day quarantine on the premises

of the purchaser, thereby eliminating more than one movement during the twenty-four hour period following vaccination.

1.29(3) Public announcement of the vaccination status of all swine shall be made prior to the sale.

1.29(4) Swine vaccinated by a licensed veterinarian must be accompanied by a certificate of vaccination.

1.29(5) Swine vaccinated by the owner must be accompanied by a notarized statement showing date of vaccination, serial number and manufacturer of vaccine and serum.

1.29(6) Swine consigned for sale and unloaded at a livestock market must meet hog cholera vaccination requirements before leaving market whether a change of ownership occurs or not.

1.29(7) The vaccination status of all swine moving through an auction market must be acceptable to the veterinary inspector in charge.

1.29(8) Boars for immediate service and pregnant sows may be released on single treatment only, at the discretion of the veterinary inspector in charge and at no time shall a certificate of vaccination be issued on serum alone treatment.

1.29(9) Baby pigs less than thirty days of age, may be moved through a livestock market without vaccination when nursing immune sows.

1.29(10) Brucellosis. All breeding swine four months of age or over moving through a livestock market must:

- a. Originate from a validated herd, or
- b. Be proved negative to a brucellosis test conducted within sixty days prior to sale or service and originate from a herd not under quarantine.

All breeding swine showing a positive reaction to a brucellosis test conducted at a livestock market, shall be tagged in the left ear with a reactor tag and moved direct to slaughter, on permit. The herd of origin shall be placed under quarantine for immediate test. Such quarantine to remain in effect until a complete negative herd test is conducted.

The negative animals from a reactor group disclosed at an auction market can return to the farm of origin or be sold as one unit under strict quarantine to be tested no sooner than thirty days nor later than sixty days from the date of test.

1.30(163) Cattle. All female cattle born after July 1, 1963, sold or otherwise disposed of, or moved to commingle with cattle of another owner for dairy or breeding purposes, after reaching the age of nine months must have been officially vaccinated for brucellosis. (Exceptions can be made in a hardship case.)

1.30(1) Free movement of the following classes:

- a. Animals consigned directly to slaughter.
- b. Steer and spayed heifers.
- c. Native calves under eight months of age.
- d. Female cattle under thirty months of age, when officially vaccinated for brucellosis and accompanied by an official health certificate showing individual identity.

e. Females born prior to July 1, 1963 accompanied by an official health certificate showing a negative test to brucellosis conducted within a thirty-day period prior to movement.

f. Animals from a herd certified to be free of brucellosis or animals from a herd not under quarantine located in a modified certified brucellosis area.

1.30(2) Cattle originating in certified herds and modified certified brucellosis areas lose their identity and brucellosis health status when consigned by a dealer or pass through a nonapproved market and must be handled according to 1.30(1), "a" through "e".

1.30(3) Bulls. Official brucellosis vaccination will not be recognized for the intrastate movement of bulls of any age.

Bulls eight months of age and over must be accompanied by an official health certificate.

a. Showing a negative brucellosis test conducted within thirty days prior to movement, or

b. Originate in a herd certified to be free of brucellosis, or

c. Originate from a herd not under quarantine located in a modified certified brucellosis area.

1.30(4) Cattle meeting Iowa brucellosis vaccination requirements purchased at an auction market may be tested for brucellosis on the auction market premises, in the new owner's name at owner's request. This test must be made within twenty-four hours from the time of sale. If such test discloses reactors, the herd of origin shall be placed under quarantine for immediate test. The negative animals can return to the farm of origin or be sold under strict quarantine to be retested no sooner than thirty days nor later than sixty days from the date of test. Reactors must be consigned direct to slaughter on permit.

1.30(5) Female cattle of recognized beef type under twenty-one months of age not having met brucellosis requirements as set forth above, are subject to feeder quarantine for a period of time not to exceed twelve months. An owner may upon written request receive an extension of quarantine not to exceed one hundred twenty days. Such cattle may be sold or transferred between owners, when not under quarantine, and it shall be the responsibility of the seller or owner to furnish evidence of the sale or transfer to the Iowa division of animal industry within seventy-two hours.

1.30(6) Bulls of recognized beef type sold through auction markets are subject to immediate test, castration or consignment to slaughter.

1.31(163) Sheep.

1.31(1) Market class sheep shall have free movement through all auction markets when meeting the following requirements:

a. Consigned direct to slaughter on a signed slaughter affidavit.

b. Properly branded with the letter "K" on the side or back by means of red branding paint.

1.31(2) Other classes of sheep:

a. Must have been dipped within ten days under veterinary supervision to move through an auction market.

b. Can be handled only by auction markets having dipping facilities available.

1.31(3) All sheep unloaded at an auction market which does not maintain proper dipping facilities must move direct to slaughter and may not return to the farm of origin without dipping.

1.31(4) The same requirements as stated in 1.31(1), 1.31(2) and 1.31(3) above shall be in effect on any sheep sold from trucks by managers of the auction markets, regardless of whether they are unloaded in the yards.

1.32(163) Swine vaccination. All swine of thirty days of age or over that are sold or leased to move intrastate and not consigned direct to slaughter or for serum production, must be accompanied by a valid certificate of vaccination issued by a licensed veterinarian or notarized statement of vaccination by owner against hog cholera by a method approved and recognized by the Iowa department of agriculture and the United States department of agriculture.

Unvaccinated swine at time of sale or lease, must be vaccinated on the premises of the seller or lessor or may move to an Iowa auction market or approved feeder pig market to be vaccinated; and must move to the premises of the purchaser or lessee within twenty-four hours of vaccination, where they shall be placed under twenty-one-day quarantine.

Freshly vaccinated swine, if not moved within twenty-four hours of vaccination, shall be placed under twenty-one-day quarantine on the owner's premises.

This rule is intended to implement chapter 163 of the Code.

[Filed July 14, 1964; amended January 12, 1966, May 14, 1968, July 9, 1968]

HEALTH REQUIREMENTS COVERING THE INTRASTATE MOVEMENT OF POULTRY

1.33(163) Turkeys. All turkey-hatching eggs or turkey poults must originate from flocks or hatcheries that comply with the following requirements of the Iowa state department of agriculture.

1.33(1) Originate from a flock tested annually and classified as follows:

a. "U. S. pullorum-typhoid clean" as provided in the National Turkey Improvement Plan (9 CFR 146).

b. S. typhimurium tested and no reactors found.

c. "Mycoplasma Gallisepticum tested and no reactors found."

1.33(2) All blood samples shall be drawn by approved testing crews.

1.33(3) All birds to be banded and blood samples identified by band number.

1.33(4) Blood samples shall be tested by an approved laboratory.

1.33(5) Tests shall be conducted with antigens approved by the department.

1.33(6) All eggs used for hatching shall be identified by the flock owner as to the flock of origin.

1.33(7) Ten percent of the flock shall be tested for mycoplasma gallisepticum at time flock is selected. Ten percent of the flock shall be tested for mycoplasma gallisepticum at the time the pullorum-typhoid and typhimurium test is conducted using the same sera. Ten percent of the flock shall be tested for mycoplasma gallisepticum when first eggs are saved or at time of first artificial insemination.

1.33(8) All flock and hatchery owners shall follow sanitation procedures prescribed by the department.

1.33(9) Flock and hatchery owners shall report any signs of respiratory disease to the department.

1.34(163) Chickens.

1.34(1) All chicken-hatching eggs or baby chicks must originate from flocks or hatcheries that have a pullorum-typhoid clean rating given by the official state agency of the National Poultry Improvement Plan or other state agency.

1.34(2) All boxes, crates and containers shall be new or disinfected before being used to move poultry within the state of Iowa, and identified with a label co-operating in the National Poultry Improvement Plan or other state agency.

1.35(163) and 1.36(163) Reserved for future use.

[Filed June 13, 1966; amended May 14, 1968]

BRUCELLOSIS

1.37(163) Definitions as used in these rules.

1.37(1) "Department" means the Iowa Department of Agriculture, State Capitol Building, Des Moines, Iowa.

1.37(2) "Federal Office" means the Animal Disease Eradication Division, Agricultural Research Service, United States Department of Agriculture, 501 Iowa Building, Des Moines, Iowa.

1.37(3) "Brucellosis" means the disease of brucellosis in animals.

1.37(4) "Brucellosis Test" means the blood serum agglutination test for brucellosis, applied in accordance with a technique approved by the department.

1.37(5) "B.R.T." means brucellosis ring test as applied to milk and cream, and used as a presumptive test for locating possible brucellosis infected herds according to a technique approved by the department.

1.37(6) "Brucellosis Test Classification" means the designation of animals tested by the brucellosis test classifying them as negative, suspects or reactors according to the following diagnostic tables:

<i>a. Official Vaccinates:</i>			
	Dilutions		Diagnosis
1:50	1:100	1:200	
—	—	—	Negative
+	—	—	Negative
+	+	—	Suspect
+	+	+	Reactor
<i>b. Nonvaccinated Animals:</i>			
	Dilutions		Diagnosis
1:50	1:100	1:200	
—	—	—	Negative
+	—	—	Suspect
+	+	—	Reactor
+	+	+	Reactor

1.37(7) "Veterinarian" means a graduate of an approved veterinary school who is licensed and registered to practice veterinary medicine in this state.

1.37(8) "Under Official Supervision" is the term applied to any herd following control plans 1.38(1) [Plan A], 1.38(2) [Plan B] or 1.38(3), [Plan C], and the owner of which has signed the State-Federal Co-operative Agreement.

1.38(163) Control plans for brucellosis. In order to be recognized as being under a control plan for brucellosis it will be necessary for owners of cattle to sign an agreement form prescribed by the department designating one of the following plans:

1.38(1) [Plan A] Test annually of all cattle more than eight months of age, except steers, spayed heifers and official calfhood vaccinates until thirty months of age, slaughter all reactors with indemnity payments as provided by state and federal regulations. All reactors to be hot iron branded on the left jaw with the letter "B" at the time the test is completed. Official calfhood vaccination to be optional with the herd owner.

1.38(2) [Plan B] Test annually all cattle more than eight months of age, except steers, spayed heifers and official calfhood vaccinates until thirty months of age. All reactors are to be identified by hot iron brand on the left jaw with the letter "B" and with an ear tag in the left ear, and the herd quarantined on the farm. No reactors may be held more than

three years. If a calfhood official vaccinate reacts, the animal may be retested within sixty days at the owner's expense. Official vaccination of all female calves between the ages of four and eight months.

1.38(3) [Plan C] Official vaccination of all female calves between the ages of four and eight months. The herd must be composed entirely of official vaccinates.

a. Owners who follow either 1.38(2) [Plan B] or 1.38(3) [Plan C] may change to 1.38(1) [Plan A] by compliance with the requirements of 1.38(1) [Plan A] and be eligible for indemnity providing the herd has passed one complete herd test with disposal without indemnity of any reactors disclosed.

1.39(163) Certified brucellosis-free herd. In order to qualify a herd of cattle as brucellosis-free, and receive a certificate evidencing same, the owner thereof shall comply with the following requirements:

1.39(1) Certified brucellosis-free herd. Tests on herds in which reactors have been disclosed shall be made at intervals of not more than sixty days until all evidence of infection has been eliminated. These tests shall include all animals over six months of age, except steers, spayed heifers and officially vaccinated animals not over thirty months of age. A herd may be certified as brucellosis-free when it has passed at least three consecutive tests, with the first clean test and the certifying test not less than twelve months apart. Where there is no evidence of infection on the first test, a herd may be certified as brucellosis-free when it has passed one additional clean test conducted not earlier than six months nor more than one year from the date of the first test. Where the milk test is employed, herds may be certified as brucellosis-free with a minimum of three negative milk tests conducted at intervals of from four to six months and followed by a clean blood test within thirty days of the last milk test (BRT). All recertification of herds shall be based on the annual negative blood test.

1.39(2) Additions to certified herds.

a. To certified herds:

(1) From herds with equal status.

(2) From once-tested clean herds.

Calf vaccinated animals up to thirty months of age on certificate of vaccination—over thirty months if negative; or nonvaccinated animals on evidence of negative retest not less than sixty days from date of negative herd test.

b. To once-tested clean herds.

(1) From herds with equal or superior status.

(2) From other herds, calfhood vaccinated animals up to thirty months of age on certificate of vaccination; over thirty months, if negative; nonvaccinated animals if tested negative, then segregated and retested negative in not less than sixty days.

1.39(3) The owner or veterinarian shall make a request to the chief, division of animal industry for certification, or recertification, for a brucellosis-free herd when the required tests are completed.

1.40(163) Restraining animals. To facilitate the vaccination, taking of blood sample or identifying animals as reactors, it shall be the duty of the owner to confine the animals in a suitable enclosure and to restrain the individual animal in a manner sufficient to permit the veterinarian to perform any of the services required under laws and rules of Iowa.

1.41(163) Quarantines.

1.41(1) Bovine animals classified as reactors shall be quarantined on the premise and not permitted to mingle with other cattle until disposed of for slaughter under a permit issued by the department or its authorized agent.

1.41(2) All bovine animals comprising a herd operating under control Plan A shall be quarantined when one of its members has been classified as a reactor, such quarantine to remain in effect until two consecutive negative brucellosis tests, thirty to sixty days apart, have been made. No animals of such a herd may be moved or sold except to slaughter under permit issued by the department or its authorized agent except that the department in hardship cases may permit the movement of such animals other than to slaughter with quarantines remaining in effect at the new location, together with any new animals with which they may commingle.

1.41(3) Owners of animals tested for brucellosis shall hold the entire herd on the premises until the results of the test are determined.

1.41(4) Notice of quarantine shall be delivered in writing by the department or its authorized agent to the owner or caretaker of all cattle quarantined. A report of such quarantine shall also be filed with the department as prescribed.

1.41(5) All suspects to the brucellosis test disclosed in herds operating on Plan A or Plan B shall be quarantined and subjected to a retest. Suspects shall be subjected to two tests, thirty to sixty days apart. Unless subsequent tests show the animal to be a reactor the animal may be released from quarantine.

1.42(163) Identification of bovine animals.

1.42(1) Identification tag. Every veterinarian, in conjunction with the testing of any bovine animal for brucellosis or the vaccination of any such animal shall insert an identification tag of the type approved by the department in the right ear of each animal which is not so identified; provided that in the case of an animal registered with a purebred association, the registry or tattoo number assigned to the animal by such association may be used for identification in lieu of an identification tag.

1.42(2) Official vaccinates (Defined by law). All official vaccinates must be given an identification tag in the right ear, and in addition must be tattooed or branded in accordance with chapter 164 of the Code.

1.42(3) Reactor identification. Bovine-reactor cattle eight months of age or over shall be permanently branded with a hot iron on the left jaw with the letter "B" not less than two inches nor more than three inches high and shall also be tagged in the left ear with a reactor identification tag approved by the department within fifteen days of the date on which they were disclosed as reactors. This subrule shall not apply to official calfhood vaccination as defined in section 164.1 of the Code. Such vaccinates need not be branded if they react to the brucellosis test until thirty months of age.

1.43(163) Cleaning and disinfection. After any disclosure of reactors to the brucellosis test, and following their disposal for slaughter, the owner of such cattle shall be required to clean and disinfect all barns and premises in which said cattle have been held. Such cleaning and disinfection shall be done in accordance with instructions and with a disinfectant approved by the department.

1.44(163) Disposal of reactors.

1.44(1) Reactor cattle disclosed in herds operating under Plan A shall be tagged and branded within fifteen days of the date the blood samples were taken. In accordance with Iowa law, an additional thirty days will be allowed for slaughter.

1.44(2) All reactors shall be disposed of for slaughter only in plants operating under federal meat inspection or slaughtering establishment approved by the department and must be accompanied by a shipping permit ADE 1-27 issued by an accredited veterinarian.

1.44(3) No cattle shall be disposed of through public sales or sales barns.

1.45(163) Brucellosis tests and reports.

1.45(1) All brucellosis tests conducted at state-federal expense must be tested at the state-federal laboratory, Ames, Iowa.

1.45(2) The department shall approve a veterinarian as eligible to conduct brucellosis tests, provided he has submitted to and has successfully passed a course of training and instruction provided by the department. The department shall specify the standards for maintaining such approval.

1.45(3) All brucellosis tests conducted by a veterinarian must be reported to the department, on forms prescribed, within seven days following completion of such tests. A copy of such tests shall also be given to the herd owner by the veterinarian.

1.45(4) Reports of vaccination shall be rendered by the veterinarian within thirty days in compliance with the regulation. It is

from the information on these reports that the owner of the cattle will receive recognition as being under official supervision.

1.46(163) Suspect animals designated as reactors.

1.46(1) A nonvaccinated animal classified as a suspect on two consecutive brucellosis tests no sooner than thirty nor longer than sixty days apart may be reclassified as a reactor by the veterinarian obtaining the blood sample, provided the herd of origin contains reactors.

1.46(2) A nonvaccinated animal classified as a suspect on the brucellosis test may be reclassified as a reactor by the veterinarian obtaining the blood sample provided that such an animal is known to have aborted and is from a herd containing reactors.

1.46(3) Animals so designated in 1.38(1) and 1.38(2) will be eligible for indemnity in accordance with the laws and rules governing same.

1.47(163) Indemnity not allowed.

1.47(1) No indemnity shall be paid unless the test was previously authorized by proper state or federal authority.

1.47(2) No indemnity may be paid on an animal which was vaccinated when it was more than eight months of age.

1.47(3) No indemnity may be paid for calves positive to the agglutination test unless eight months of age or over.

1.47(4) No indemnity may be paid as a result of a test of an official vaccinate less than thirty months of age.

1.47(5) No indemnity may be paid upon reactors unless they are tagged, branded and slaughtered according to the state and federal regulations.

1.47(6) No indemnity may be paid upon cattle entering the state of Iowa which have not met the requirements for entry as breeding or dairy cattle.

1.47(7) No indemnity can be paid on reactors owned by the state or county.

1.47(8) No indemnity may be paid on unregistered reactor bulls, steers or spayed heifers.

1.47(9) No indemnity will be paid for brucellosis reactors when known reactors have been held on the premises for more than thirty days from the date on which they were tagged and branded.

1.47(10) No indemnity will be paid when infected premises have not been cleaned and disinfected to the satisfaction of the department in such a manner as to prevent the further spread of the disease.

1.47(11) No indemnity will be paid if the claimant has failed to comply with any of the requirements of these rules.

1.47(12) No indemnity will be paid on brucellosis reactors disclosed in a herd unless a state-federal co-operative agreement has been signed by the owner prior to conducting the brucellosis test.

1.47(13) No indemnity will be allowed unless all animals comprising the herd, both beef and dairy type, have been subjected to a brucellosis test conducted at the state-federal laboratory.

1.47(14) No indemnity will be paid on any reactors unless they are slaughtered in a plant operating under federal meat inspection and accompanied by a shipping permit ADE 1-27 issued by an accredited veterinarian.

1.48(163) Area testing.

1.48(1) Counties shall be tested in the order that valid petitions are received unless the department shall decide that it is not expedient to make the tests in that order.

1.48(2) All provisions of the rules as promulgated under authority of 164.2 of the Code are also in effect for counties designated as under area testing.

1.48(3) An area may be declared modified certified brucellosis-free by the application of two milk tests not less than six months apart, together with a blood test of all milk reacting herds and such other herds as are not included in the milk test. The number of reactors (exclusive of officially calf vaccinated animals under thirty months of age) must not exceed one percent of the cattle and the herd infection must not exceed five percent. Infected herds shall be quarantined until they have passed at least two consecutive blood tests not less than sixty days apart.

1.48(4) If testing as outlined in 1.48(3) above reveals an animal infection rate of more than one percent, but not over two percent, and a retest of the infected herds applied; within one hundred twenty days discloses not more than one percent animal infection in not over five percent of the herds, the area may then be certified.

1.48(5) If the test of an area as outlined under 1.48(3) results in more than two percent reactors, or if a retest of infected herds as under 1.48(3) does not qualify the area for certification, it shall be necessary to make a complete area retest.

1.48(6) Recertification. Areas may be recertified with the application of semiannual milk tests, follow-up blood tests of milk reacting herds, and blood tests at three year intervals on twenty percent of all herds not included in the milk test, if the incidence of infection does not exceed one percent of the cattle and five percent of the herds under test.

1.48(7) If testing as outlined under 1.48(6) reveals an animal infection rate of more than one percent, but not over two percent and a retest of the infected herds applied within one hundred twenty days discloses not more than one percent animal infection in

not over five percent of the herds, the area may then be certified.

1.48(8) Any area not qualifying for recertification under the provisions of 1.48(7) shall be required to re-establish its certified status through testing procedures as outlined under 1.48(3).

1.48(9) The report of suspicious ring test of any herd shall be cause for a brucellosis test to be made.

1.48(10) The report of negative ring test will exempt a herd from brucellosis test unless such herd is due a test because of previous infection.

1.48(11) Milk producing herds missed on more than one regularly scheduled ring test will be required to have a brucellosis test made.

1.49(163) Tuberculin tests adopted by the department of agriculture are:

1.49(1) The subcutaneous or "Thermal" test.

1.49(2) The intradermic or "Skin" test.

1.49(3) The ophthalmic or "Eye" test.

1.50(163) The intradermic tuberculin test will be accepted provided it has been applied by a regularly employed state or federal veterinarian, an accredited veterinarian, or by an approved veterinarian when endorsed by the authorities of the state of origin, provided the observations be made at the seventy-second hour.

1.51(163) The intradermic test is hereby adopted for area tuberculosis eradication work.

1.52(163) The ophthalmic test will not be accepted as an official test except when applied in combination with either the subcutaneous or intradermic test.

1.53(163) All tuberculin tests must be made within thirty days of date of shipment.

1.54(163) All certificates of health must show the number of cattle included in the test, the name of the owner, and the post-office address.

1.55(163) All cattle not identified by registration name and number shall be identified by a proper metal tag bearing a serial number, attached to the right ear.

1.56(163) No cattle shall be imported into the state of Iowa except in accordance with 1.34(163).

1.57(163) All herds of breeding cattle in counties that are under state and federal supervision for the eradication of tuberculosis in which reactors have been found may be held in quarantine until they have passed a negative tuberculin test.

1.57(1) All cattle that react to the tuberculin test, as well as those which show physical evidence of tuberculosis shall be marked for identification by branding with the letter "T"

not less than two or more than three inches high on the left jaw and to the left ear shall be attached a metal tag bearing serial number and the inscription "REACTOR".

1.58(163) All untested steer cattle shall be handled and maintained as a separate unit from the breeding cattle (which means they shall be quarantined, watered, and fed apart from breeding cattle).

1.59(163) Female cattle, the products of which are intended for family use, may be tuberculin tested without being denied the use of the same pastures and the same watering troughs as steers in feeding. This does not apply to female cattle, the products of which are handled commercially; neither does it apply where the feeding cattle are other than steers. Cows kept under such conditions cannot be sold for any purpose other than slaughter without being subjected to an additional tuberculin test.

1.60(163) Certificates and test charts must be made to conform with United States Bureau of Animal Industry rules governing the interstate movement of cattle; the original must be attached to the waybill, and a copy forwarded to the Chief of Division of Animal Industry, Iowa Department of Agriculture, Des Moines, Iowa 50319.

1.61(163) Reactors to the tuberculin test brought in for immediate slaughter must be consigned to a slaughtering establishment having federal inspection and must be transported thereto in accordance with section V, Regulation 7, of B. A. I. Order No. 309.

1.61(1) When it is found on slaughter that animals are affected with tuberculosis, the chief, division of animal industry may order an immediate investigation, and if deemed advisable have all breeding cattle on the premises from which the tubercular animals originated, tested for tuberculosis.

1.61(2) When cattle within the state of Iowa are sold under sale contract to pass a sixty- or ninety-day tuberculin test and have failed to pass the same, before being returned to the original owner the party wishing to return such animal or animals shall first obtain a permit from the chief, division of animal industry, Iowa department of agriculture, to do so.

1.61(3) When cattle are sold out of the state of Iowa under sale contract to pass a sixty- or ninety-day tuberculin test and failing to pass the same, before being returned to the original owner, the party wishing to return such animal or animals shall first furnish a tuberculin test chart showing the reaction, giving the date of reaction and proving to the satisfaction of the chief, division of animal industry, that such animals are reactors.

1.62(163) The rules adopted by the Iowa department of agriculture governing the es-

tablishment of tuberculosis-free accredited herds and accredited areas or units in Iowa will be applied to such herds, and areas or units in co-operation with the bureau of animal industry, United States department of agriculture.

1.63(163) A tuberculosis-free accredited herd is one which has been tuberculin tested by the subcutaneous method, or any other test approved by the bureau of animal industry, under the supervision of the Iowa department of agriculture and the United States department of agriculture, or a veterinary inspector employed by the state in which co-operative tuberculosis eradication work is being conducted jointly by the United States department of agriculture and the state. Further, it shall be a herd in which no animal affected with tuberculosis has been found upon two annual or three semiannual tuberculin tests, as above described, and by physical examination.

1.64(163) The entire herd, or any cattle in the herd, shall be tuberculin tested or retested at such time as is considered necessary by the federal and state authorities.

1.65(163) No herd shall be classed as an accredited herd, in which tuberculosis has been found by the application of the test as referred to in 1.63(163), until such herd has been successfully subjected to two consecutive tests with tuberculin applied at intervals of not less than six months, the first interval dating from the time of removal of the tuberculous animals from the herd.

1.66(163) No cattle shall be presented for the tuberculin test which have been injected with tuberculin within sixty days immediately preceding or which have at any time reacted to a tuberculin test.

1.67(163) Prior to each tuberculin test satisfactory evidence of the identity of the registered animal shall be presented to the inspector. Any grade cattle maintained in the herd, or associated with the animals of the herd, shall be identified by a tag, or other marking, satisfactory to the state and federal officials.

1.68(163) All removals of cattle from the herd, either by sale, death, or slaughter, shall be reported promptly to the said state or federal officials, giving the identification of the animal, and if sold, the name and address of the person to whom transferred. If the transfer is made from the accredited herd to another accredited herd the shipment shall be made in only cleaned and disinfected cars. No cattle which have not passed a tuberculin test approved by the state and federal officials shall be allowed to associate with the herd.

1.69(163) All milk and other dairy products fed to calves shall be that produced by an accredited herd, or if from outside or unknown sources it shall be pasteurized by heating to not less than 150° F. for not less than twenty minutes.

1.70(163) All reasonable sanitary measures and other recommendations by the state and federal authorities for the control of tuberculosis shall be complied with.

1.71(163) Cattle from an accredited herd may be shipped interstate on certificate obtained from the office of the chief, division of animal industry or from the office of the bureau of animal industry without further tuberculin test, for a period of one year, subject to the rules and regulations of the state of destination.

1.72(163) All cattle which react to the tuberculin test and for which the owner desires indemnity, as provided by statute, must be removed immediately from the cattle barn, lots, and pastures where other cattle are being kept.

1.72(1) The barn or place where reacting cattle have been housed or kept shall be thoroughly cleaned and disinfected immediately.

1.72(2) Feed places and floors must be cleared of all hay and manure and scraped clean.

1.72(3) All loose boards and decayed woodwork should be removed, and when deemed necessary, and requested by the veterinarian, must be accomplished before it will be considered that the place has been properly cleaned and disinfected.

1.72(4) The feeding places, troughs, floors and partitions near the floor should be washed and scoured with hot water and lye.

1.73(163) Strict compliance with these methods and rules shall entitle the owner of tuberculosis-free herds to a certificate, TUBERCULOSIS-FREE ACCREDITED HERD", to be issued by the United States department of agriculture, bureau of animal industry and the division of animal industry, Iowa department of agriculture, said certificate shall be good for one year from date of test, unless revoked at an earlier date.

1.74(163) Failure on the part of the owners to comply with the letter or spirit of these methods and rules shall be considered sufficient cause for immediate cancellation of the co-operative agreement with them by the state and federal officials.

1.75(163) In accordance with the provisions of chapter 165 of the Code, the Iowa department of agriculture shall have control of the sale, distribution, and use of all tuberculin used in the state and shall formulate regulations for its distribution and use. Only such persons as are authorized by the department, inspectors of the B.A.I., and regularly licensed practicing veterinary surgeons of the state of Iowa shall be entitled to administer tuberculin to any animal included within the meaning of this chapter.

1.76(163) No person, firm, or corporation shall sell or distribute tuberculin to any per-

son or persons in the state of Iowa except under the following conditions:

1.76(1) That the person or persons are legally authorized to administer tuberculin.

1.76(2) That all sales of tuberculin shall be reported to the secretary of agriculture on proper forms, which forms may be obtained from the chief, division of animal industry.

1.76(3) Reports of all sales and distribution of tuberculin in the state of Iowa shall be made in triplicate; the original copy to be delivered with the tuberculin to the person obtaining same; the duplicate to be forwarded to the Chief, Division of Animal Industry, Des Moines, Iowa 50319; and the triplicate copy to be retained by the manufacturer or distributor. All reports shall be made within sixty days from date of sale.

1.77(163) When hogs upon any farm or premises within the state of Iowa are sick or show symptoms of cholera, it shall be the duty of the owner or person having supervision of such hogs to immediately report same to the chief, division of animal industry. Upon receiving such notice the chief, division of animal industry shall promptly investigate the case. If cholera is present the regular quarantine card shall be posted and the owner or person having supervision of the hogs so diseased will be required:

1.77(1) To shut up his sick hogs or confine them under cover away from all carriers of infection.

1.77(2) To vaccinate the herd.

1.77(3) To burn all dead hogs within twenty-four hours, intact, or he may dispose of same by turning such dead hogs over to a licensed rendering plant, within twenty-four hours. Failure of the owner or his agent to dispose of the carcasses of hogs as outlined above, will be cause for the disposal of same in accordance with 1.115(163).

1.77(4) To clean and disinfect the hog houses, pens and yards where infected hogs have been and to disinfect daily that part of the premises where sick hogs are being kept under cover. When satisfied that the herd has recovered from the disease the remaining hogs may be given their freedom on the premises and the part of premises where the sick hogs have been kept shall be cleaned and disinfected.

1.78(163) All hogs within the state of Iowa immunized by the double or simultaneous method against hog cholera shall be held intact for a period of not less than twenty-one days from date of vaccination.

1.79(163) A person, firm, company, or corporation before selling or offering for sale within the state any anti-hog-cholera serum and hog-cholera virus, shall first make application to the department of agriculture for permission.

1.80(163) Said application shall give the name of said person, firm, company, or corporation with their place or places of business.

1.81(163) No anti-hog-cholera serum and hog-cholera virus shall be sold or offered for sale or use or be used in this state which has not been produced at a plant holding a valid United States government license for the manufacture and sale of same.

1.82(163) Any person, firm, company, or corporation operating under permit issued by the department of agriculture that sells or distributes or is responsible for the sale or distribution of any anti-hog-cholera serum and hog-cholera virus, if the same should cause any sickness in hogs, shall promptly investigate the complaint and report the result to the Chief, Division of Animal Industry, Des Moines, Iowa 50319. Until such action is taken by such person, firm, company, or corporation, and a report made as required, their license or permit may be suspended or canceled by the secretary of agriculture.

1.83(163) All anti-hog-cholera serum and hog-cholera virus and all serum and toxins which may be injuriously affected by exposure to light and to high temperature, must be stored in a dark, cool chamber or refrigerator at a temperature not to exceed 55°F.

1.83(1) All dealers in the state of Iowa or in any place under the jurisdiction of the state of Iowa shall keep such products protected from light and under refrigeration until sold or otherwise disposed of.

1.84(163) Permanent daily records of the course of the preparation, of tests for purity and potency and of methods of preservation of virus, serum and toxins shall be kept by each licensed establishment whether it is a dealer or manufacturer producing such products in the state of Iowa, on a form satisfactory to the chief, division of animal industry, or a duly authorized representative of the secretary of agriculture; and also a record shall be kept by each establishment and by each manufacturer, showing the sale, shipment, or other disposition of anti-hog-cholera serum or hog-cholera virus.

1.85(163) Each true container of anti-hog-cholera serum and hog-cholera virus prepared for sale, exchange or shipment by any licensed establishment within the state of Iowa, or imported into the state, shall bear a trade label as hereinafter directed.

1.86(163) No container of anti-hog-cholera serum and hog-cholera virus shall bear a label unless or until the product contained therein shall have been prepared in compliance with these rules and found not to be worthless, contaminated, or harmful.

1.87(163) No person shall apply or affix or cause to be applied or affixed, any trade label, stamp, or mark on any container of anti-hog-cholera serum or hog-cholera virus prepared or received in a licensed establish-

ment except in compliance with these rules. Suitable tags or labels of a distinct design shall be used for identifying all anti-hog-cholera serum and hog-cholera virus.

1.88(163) Each trade label, stamp, or trademark shall show the federal license number and the permit number issued by the state.

1.89(163) Each trade label, stamp, or mark shall bear a serial number affixed by the manufacturer by which the product can be identified with the records of preparation.

1.90(163) Each trade label, stamp, or mark shall bear a return date affixed by the producer of same. The date shown shall be the date after which the manufacturer does not guarantee the product to be of full strength and potency.

1.91(163) On the trade label, stamp, or mark affixed to the true container of hog-cholera virus, in addition to the statements required by the preceding rules, the following must be prominently placed and lettered: Caution: Burn virus container and all unused contents.

1.92(163) Any person, not a registered veterinarian, applying for a permit to use hog-cholera virus must furnish to the secretary of agriculture a certificate from a recognized institution certifying that such person has taken proper course of instruction and is qualified to safely use hog-cholera virus whereupon the secretary of agriculture shall issue a permit to such person to use hog-cholera virus on his own hogs upon his own premises.

1.93(163) No person, firm or corporation shall engage in the business of disposing of the bodies of dead animals without first obtaining a license to do so in the manner and upon the terms and conditions provided in chapter 167 of the Code.

1.94(163) Any person who shall obtain from any other person the body of any animal for the purpose of obtaining the hide, skin, or grease from such animal in any way whatsoever, shall be deemed to be engaged in the business of disposing of dead animals.

1.95(163) Any person desiring to engage in the business of disposing of the bodies of dead animals by cooking or otherwise shall file with the department of agriculture of the state of Iowa an application for license.

1.96(163) Such applicant shall at the time he files such application pay to the department of agriculture the sum of one hundred dollars.

1.97(163) If the secretary of agriculture shall find that such applicant is a responsible and reliable person, and capable of conducting properly such business, and that the place where such business is to be conducted is a suitable and sanitary place, he shall issue to such applicant a certificate to that effect.

1.98(163) Such applicant shall file such certificate with the department of agriculture

and shall pay said department the sum of one hundred dollars for a license to conduct such business.

1.99(163) Every person operating under a license issued by the department of agriculture shall pay, annually, for the renewal of such license the sum of one hundred dollars.

1.100(163) Plans of disposal plant, either in blueprint or detail drawing shall be filed with the Iowa department of agriculture. All tanks, vats, pipes, drains, valves, etc., shall be shown in detail. A separate drawing or blueprint of the covered or underground portion of the construction shall be included with these plans. Any alteration in construction that is to be made shall be approved by the department before construction is undertaken.

1.101(163) No place shall be deemed suitable or sanitary for disposing of the bodies of dead animals unless it conforms to the following specifications:

1.101(1) The building must be provided with concrete or cement floors or some other nonabsorbent material and provided with good drainage and be thoroughly sanitary.

1.101(2) All cooking vats or tanks shall be airtight; except where proper escapes or vents are required for live steam used in cooking.

1.101(3) Steam shall be so disposed of as not to cause unnecessary annoyance or create a nuisance.

1.101(4) Such place shall be so situated, arranged and conducted as not to interfere with the comfortable enjoyment of life and property of the citizens of this state.

1.101(5) No liquid wastes, either from the process or from washings, shall be discharged into any stream, watercourse, or on the surface of the ground.

1.101(6) All sewage from washing of floors, wagons, trucks, and all liquid wastes from the rendering process shall be disposed of by:

a. Evaporation.

b. Sterilized by boiling.

c. Through a series of septic tanks proven adequate to handle and render nonpathogenic the quantity of material discharged at maximum capacity of the plant. The disposal plan for carrying out the above process shall be submitted to the department for approval before it is installed.

1.102(163) Conveyances for transporting carcasses of animals must be provided with watertight bed or tank not less than twenty-four inches in depth; all metal or metal-lined and watertight at least four inches above the general level of the bottom of box or bed; endgate to be of metal or metal-lined, hinged at the bottom of box or bed and fastened firmly at top when closed; endgate to be provided with an effect on the inside to fit snugly over the end of the bed.

1.103(163) All trucks used for transporting carcasses of dead animals on the highways must be owned and operated by a licensed disposal plant, except as provided for in 1.104(163). The name and address and license number of the plant shall be painted on both sides of the truck in letters not less than four inches high and in a color in definite contrast to the body color of the truck.

1.104(163) In cases where licensed disposal plants have employees operating trucks in other cities or towns, they must operate under the name of the licensed disposal plant by which they are employed, and this applies to all advertisements and listings.

1.105(163) Tarpaulins. No disposal plant truck shall be moved on the highway without having a tarpaulin which is adequate to cover the bed of the truck and anything contained therein. If any carcass is contained in the truck or the truck has not been thoroughly cleaned, such tarpaulin must be in place covering the bed of the truck and its contents. Such tarpaulin must have no holes through which flies can pass.

1.106(163) Whenever a vehicle or person in charge thereof, or his assistant, has been upon any premises for the purpose of removing the carcass of any animal, or where animals are dead or dying, before such vehicle can be taken upon a public highway or upon other premises and before leaving the premises of the rendering plant on each trip the wheels of such vehicles, and the shoes or boots of all persons having been upon such infected premises, shall be disinfected thoroughly with any disinfectant of prescribed strength recommended by the bureau of animal industry as a disinfectant, preferably cresol compound, three percent, or a 1-1000 solution of bichloride of mercury. Facilities and materials for disinfection shall be carried on truck at all times.

1.107(163) The carcass of no animal which dies or which has been killed on account of being affected with anthrax may be handled by a disposal plant. In case through error or otherwise, an anthrax carcass is brought into a disposal plant, the plant and its trucks shall be placed under quarantine immediately on the premises of the disposal plant. And said quarantine shall remain in effect until such cleaning and sterilizing of the plant, equipment and any by-products including hides that the department may deem necessary, has been completed.

1.108(163) If a committee, composed of a member of the division of animal industry, a member of the dairy and food division, and representatives of the state board of health, and local board of health, after investigation finds that the location or management of any rendering plant interferes with the health, comfort and enjoyment of life or property, the department will consider such finding sufficient grounds for the withholding or suspending of a license.

1.109(163) It will be necessary for the management of each rendering or processing plant to spray the inside of each building, including the doors, windows, and screens, as well as all trucks used in transporting the bodies of dead animals, with an approved and effective fly control agent every thirty days beginning the first of April and continuing through the month of October.

1.110(163) Penalty. See section 167.19 of the Code.

1.111(163) All carcasses of animals dead or which have been killed on account of being infected with anthrax must be burned within twenty-four hours intact without removal of the hide, together with all contaminated flooring, mangers, feed racks, watering troughs, buckets, bedding, litter, soil, and utensils. In case such flooring, mangers, feed racks, watering troughs, buckets, stanchions, etc., that have been contaminated are constructed of metal and cement or other fireproof material, they shall be disinfected thoroughly with cresolis compound, U.S.P., or any reliable disinfectant recommended by the B.A.I., chief of division of animal industry, or a regularly qualified veterinarian. In the event the owner or his agent neglects or refuses to make such disposition of the carcasses of animals dead from anthrax within twenty-four hours, as stated above, then in such cases the disposal of the same shall be handled in accordance with 1.115(163).

1.112(163) All carcasses of hogs dead of cholera must be burned within twenty-four hours intact, or they may be disposed of within twenty-four hours to the operator of a licensed rendering plant or his employee. In the event that the owner or his agent neglects or refuses to make such disposition of the carcass or carcasses of hogs dead of cholera, then the disposal of same shall be handled in accordance with 1.115(163).

1.113(163) All carcasses of animals dead from noncommunicable diseases, may be either burned within twenty-four hours, or such carcasses may be disposed of within twenty-four hours by the operator of a licensed rendering plant or his employees. In the event that the owner or his agent neglects or refuses to make such disposition of the carcass or carcasses, then the disposal of same shall be handled in accordance with the provisions of 1.115(163).

1.114(163) All persons are strictly forbidden to throw the carcass of any animal into any river, stream, lake, or pond, or bury the carcass of any animal near any stream, or tile drain. Such carcasses if dead of noncommunicable disease, if not disposed of to a rendering plant, must be buried six feet below the surface of the ground, in accordance with the preceding rule.

1.115(163) When the owner of any animal, dead from any cause, neglects or refuses to make proper disposition of the carcasses of such animals it shall be the duty of the town-

ship trustees or local board of health to supervise the disposal of such carcasses.

[Filed November 26, 1957]

FEEDING GARBAGE

1.116(163) On and after June 1, 1953, it shall be unlawful for any person, firm, partnership or corporation to feed garbage, including all waste material, by-products of a kitchen, restaurant, stock yards, hotel, or slaughter house, every refuse accumulation of animal, fruit, or vegetable matter, liquid or otherwise to animals, unless such garbage has been heated to a temperature of 212° F. for thirty minutes.

Nothing in this requirement shall apply to an individual who feeds to his own animals only the garbage obtained from his own household.

1.117(163) Before any person shall process any public or commercial garbage for swine, a license must be obtained from the Iowa department of agriculture, division of animal industry.

1.118(163) Application blanks to obtain license for processing garbage may be secured from the Iowa Department of Agriculture, Division of Animal Industry, Statehouse, Des Moines, Iowa.

1.119(163) The license fee for each processing plant shall be fifty dollars annually, payable on or before September 1.

1.120(163) Upon receipt of the application and license fee the department will inspect the premise and the physical property on which the applicant proposes to conduct such business.

1.120(1) The representative of the department making the inspection shall file a report of his findings.

1.121(163) The cooking of raw garbage for the purpose of feeding to animals shall be in a plant or boiler located not less than 100 feet from any pen, lot, or other enclosure in which animals are kept.

1.122(163) Garbage to be fed to swine in the state of Iowa shall be cooked or heated to 212° F. for thirty minutes by one or more of the following methods:

1.122(1) Wet steaming or boiling in open vat.

1.122(2) Dry steaming or boiling in a jacketed kettle.

1.122(3) Steaming in pressure cylinder.

1.122(4) Steam boilers.

1.122(5) Direct heating over an open fire. Accurate recording thermometers shall be used regardless of the manner of cooking. Daily cooking records are to be kept and available to the department for a period of at least six months after processing.

1.123(163) The boilers or containers in which such raw garbage intended for animal

feed is cooked or heated must be kept in a clean and sanitary condition at all times.

1.123(1) All containers used for storage of raw garbage shall be constructed and kept in such a manner that rodents or animals shall not have access to them.

1.124(163) All trucks, vehicles and containers used for the transportation of raw garbage to cooking plants shall be constructed of or lined with impervious material which does not permit the escape of any fragments of garbage or of liquids and the garbage shall be covered.

1.125(163) All garbage cooking plants for processing raw garbage for the purpose of feeding animals, shall be situated and operated in such a manner as not to interfere with the comfortable enjoyment of life and property of the citizens of Iowa.

1.126(163) On and after January 1, 1956, all swine which have been fed raw garbage, as defined in section 163.26(3) of the Code, shall be placed under quarantine and held in strict isolation from other animals.

1.127(163) Swine shall not be moved from the premises until a period of thirty days has elapsed from date the quarantine is issued, and they have been inspected by a state or a federally employed veterinarian who will issue a shipping form known as ADE 1-27 for the movement of the swine direct to a federally inspected packing plant for slaughter and special processing.

1.128(163) Swine referred to in 1.126(163) and 1.127(163) which have developed the disease known as vesicular exanthema prior to or following the issuance of the quarantine, may be moved to a licensed rendering plant for processing under the direction of the Iowa department of agriculture.

1.129(163) Any vehicle used for the movement of swine referred to in 1.126(163), 1.127(163) and 1.128(163), shall be thoroughly cleaned and disinfected before leaving premises where swine have been delivered.

1.130(163) Penalty. Violations of these rules shall be punishable as provided for in section 163.29 of the Code.
[Filed April 24, 1953; amended December 22, 1955]

ERADICATION OF BOVINE TUBERCULOSIS

1.131(165) Fee schedule.

1.131(1) Injection. Five dollars per stop (herd) and seventy-five cents per head.

1.131(2) Reading. Five dollars per stop (herd) and fifty cents per head.

1.131(3) Tagging and branding reactors. Five dollars first reactor, and three dollars each additional reactor.

[Filed July 13, 1965]

RABIES CONTROL

1.132(351) Control and prevention of rabies.

1.132(1) Antirabies vaccine.

a. Modified live virus chick embryo rabies vaccine is the designated vaccine approved by the Iowa department of agriculture and will be recognized for a period of two years. It shall be given intramuscularly.

b. In the event the professional judgment of the veterinarian indicates the use of modified live virus chick embryo vaccine in a particular animal is contraindicated, inactivated nervous tissue, vaccine may be used on an annual basis.

1.132(2) Tag and certificate.

a. The veterinarian shall issue a tag with the numerical number thereon and the certificate of vaccination shall designate the tag number.

b. Each rabies vaccination certificate issued by the veterinarian must be an Official Rabies Vaccination Certificate approved by the Iowa department of agriculture.

[Filed July 13, 1965; amended March 21, 1967]

1.133 to 1.136, inclusive. Reserved for future use.

BOVINE BRUCELLOSIS

1.137(164) Back tagging in bovine brucellosis control.

1.137(1) All bovine animals two years of age and older received for sale or shipment to a slaughtering establishment shall be identified with a back tag issued by the department. The back tag will be affixed to the animal as directed by the department.

1.137(2) It shall be the duty of every livestock trucker, when delivering to an out-of-state market, and every livestock dealer, livestock market operator, stockyards operator, and slaughtering establishment to identify all such bovine animals, not bearing a back tag, at the time of receiving possession or control of such animals. A livestock trucker may be exempted from this requirement if the animals are identified as to the farm of origin when delivered to a livestock market, stockyards, or slaughtering establishment agreeing to accept responsibility for back tag identification.

1.137(3) Every person required to identify animals under this rule shall file reports of such identification on forms prescribed by the department. Each such report will cover all animals identified during the preceding week.

[Filed September 26, 1967]

CHAPTER 2

MOVEMENT OF LIVESTOCK (INTERSTATE—INTRASTATE)

NOTE: Rules governing movement of livestock (both interstate and intrastate) through livestock auction markets, marketing agencies, sale barns or sale yards; with special reference to brucellosis requirements of cattle as applied to livestock auction markets and marketing agencies specifically approved under state-federal agreement.

For the purpose of following rules—livestock markets shall be deemed to include all auction markets, marketing agencies, sales barns, sales yards or livestock dealers operating under a state permit as required.

2.1(163) Permits.

2.1(1) *By whom required.* Any person, partnership, firm, corporation or livestock market engaged in the business of buying, selling or assembling livestock, or receiving livestock by consignment, for the purpose of resale either interstate or intrastate, whether by private sale, public auction or on a commission basis either wholly or in part, when not under full-time federal supervision must be under state supervision and must first obtain a permit to conduct such business. A separate permit must be obtained for each separate or independent marketing unit even though operated under the same management or same person, partnership, firm, corporation or livestock market.

The foregoing provision shall not apply to authorized agents or employees of livestock markets operating under a valid state permit, provided such agent or employee is doing business in the name of such livestock market, nor shall it apply to the owner or operator of a farm or feedlot who deals only in livestock which has been kept by him, or is to be used by him, for dairy, breeding, or feeding purposes. Furthermore, this shall not apply to a commission firm doing business under the rules and regulations of a public stockyards company operating under federal supervision.

2.1(2) *How permits will be issued.* Applications for livestock marketing permit shall be made to the division of animal industry by the marketing unit owner or operator or the livestock dealer on a special form furnished by the department. Upon receipt of such application, an investigation will be made and the premises will be inspected by a qualified state employed inspector. A permit will then be issued or the application denied.

2.2(163) Animal health and sanitation requirement.

2.2(1) *Veterinary inspection required.* All auction markets, marketing agencies, sales barns, or sales yards operating under a permit as required shall provide for veterinary inspection by a qualified veterinary inspector, approved by the department of agriculture, state of Iowa; who shall inspect all animals marketed, and shall require that the premises be maintained in sanitary condition at all times.

2.2(2) *Who may inspect.* Any accredited veterinarian, licensed to practice in the state of Iowa, and who has been approved by the Iowa department of agriculture, state capitol, Des Moines 19, Iowa. In addition the veterinary inspector must be approved by the department to do brucellosis plate testing, or shall have available approved laboratory facilities.

2.3(163) Duties and responsibilities of the livestock market management.

General. All livestock market owners, operators or managers shall co-operate in obtaining full compliance with all state laws, rules and with the federal regulation (Part 78, Title 9—C.F.R.) and shall agree to:

2.3(1) Notify the division of animal industry, Iowa department of agriculture and United States department of agriculture (Des Moines Branch) animal disease eradication division as to method of operation (buying, receiving and selling of livestock). Auction markets shall furnish a schedule of regular sale dates and notify both aforementioned departments of all special sales not less than five days in advance.

2.3(2) Provide for chutes and divisions of yarding and pens as required to handle livestock according to their classification.

2.3(3) Furnish the name of a veterinarian who will be held primarily responsible for all inspections required to be approved as veterinary inspector.

2.3(4) Permit no animals to be sold at any time prior to veterinary inspection.

2.3(5) Release only recognized beef type cattle for feeding or grazing purposes as qualify under Iowa law and federal regulations.

2.3(6) Permit no cattle under feeder quarantine in accordance with Iowa law to be sold except direct to slaughter unless permission is granted by the approved veterinary inspector, in which case they may be released for further feeding under quarantine not to exceed the unexpired time of the original quarantine.

2.3(7) Clean and disinfect all chutes, whether portable or stationary and all pens, alleyways, and scales after each sale or at any time when ordered to do so by the approved veterinary inspector and in accordance with the procedure recommended by him.

2.3(8) Maintain accurate records, including records of origin, identification, destination or other disposition of all livestock handled at the livestock market. Such records shall be made available for inspection by an authorized state or federal inspector upon request. Such records shall be kept for a period of not less than one year.

2.3(9) Notify both state and federal offices immediately in the event of sale, transfer of ownership or change of management of the livestock marketing agency.

2.3(10) Failure to comply with any of the foregoing provisions shall be deemed sufficient reason to remove a market from the state-federal approved list or revoke the permit to operate as a livestock market or both. In the event of termination of operation, the permit to operate must be surrendered to the State Department of Agriculture, State Capitol Building, Des Moines 19, Iowa.

2.4(163) Duties and responsibilities of the livestock market veterinary inspector.

General. The livestock market veterinary inspector shall allow sufficient time to perform his duties at the livestock market and shall inspect all livestock prior to sale, whether sold by auction or private sale. In the case of auction markets he must be present during the entire time the sale is in progress. He shall have full authority to reject or detain any animal or animals at owner's expense, or any animal or animals which in his opinion is diseased or exposed in conformance with chapter 163 of the Code, which for any reason may be detrimental to the health of the animals within the state. In addition to clinical inspection on all animals, the veterinary inspector shall:

2.4(1) Permit no animal to be sold prior to test when a test is required.

2.4(2) Permit no animal to be released prior to vaccination when vaccination is required.

2.4(3) Obtain permits for movement (either interstate or intrastate) at owner's expense, when permits are required.

2.4(4) Issue all official quarantines (including feeder quarantine) or other form of releasing documents before permitting animals to be removed from the livestock market.

2.4(5) Notify the state office promptly of any transfer of ownership of feeder cattle under feeder quarantine.

2.4(6) Mail copies of all official health certificates and quarantines to the division of animal industry immediately.

2.4(7) Mail copies of all test charts (both T.B. and Brucellosis) and copies of all calftlood vaccination record Form BV-1 to the United States Department of Agriculture (Des Moines Branch), Animal Disease Eradication Division.

2.4(8) Report promptly all violations or refusals to comply with state laws, rules and federal regulations to the proper state or federal inspectors.

2.4(9) Failure to comply with any of the foregoing provisions shall be deemed sufficient reason for disapproving the veterinary inspector.

2.5(163) Classification of livestock markets.

2.5(1) State-federal approved markets shall include all markets that qualify to receive cattle in conformance with state laws, rules, and federal regulations (Title 9, Part 78—C.F.R.). They will be classified according to their physical facilities and equipment available to receive, handle and maintain the identity and the brucellosis health status of cattle marketed. They will be designated as Class "A", those approved to receive all classes of cattle including known brucellosis reactors, and Class "B", those approved to receive only cattle not known to be brucellosis infected.

2.5(2) Nonapproved markets shall include all markets that do not qualify for state-federal approval under Title 9, Part 78—C.F.R.

2.6(163) Requirements for state-federal (specifically) approved markets.

General. Collection of veterinary inspection fee: In conformance with section 211.3 of the Code, the state department of agriculture shall collect a veterinary inspection fee agreed upon by the marketing unit operator and qualified veterinary inspector, recommended by the marketing unit operator and approved by the secretary of agriculture, plus a cost of administration not to exceed two dollars per month per marketing unit, on all animals marketed through sale yards, sale barns, auction markets, or other marketing agencies required to hold permits issued by the department. Such fees, when collected, shall be placed by the secretary in an "inspection fee revolving fund" under his jurisdiction. The department shall pay fees to each such approved veterinary inspector for inspection services in accordance with agreements between such veterinarians and the marketing units where inspections are accomplished, reduced by the allowable amounts for administration. Such fees shall be adjusted from time to time so that the amount collected will not exceed the costs of said veterinary inspections and the administration thereof. The provisions of this Act shall also apply to all sale yards, sale barns, and marketing agencies receiving livestock moved into the state of Iowa for sale through said sale yards, sale barns, and marketing agencies, except meat processing establishments or terminal markets where full-time federal inspections are required and such requirements are complied with. Sale yards, sale barns and marketing agencies not handling livestock shipped into the state of Iowa for resale shall be exempt from the provisions of this Act, as well as livestock meeting federal and state requirements for interstate shipment as to health at the time of entry into Iowa.

2.6(1) Physical facilities and equipment necessary to qualify for Class "A" (state-federal) approved market.

Class "A" certificates of approval will be issued to auction markets only; and only to those markets having facilities and equipment to receive cattle in conformance with state laws, rules and with federal regulation (Title 9, Part 78—C.F.R.) and will be permitted to receive all classes of cattle including known brucellosis reactors.

2.6(2) Class "A" state-federal approved markets shall:

a. Provide a separate unloading chute and a division of yarding for handling of known brucellosis reactors, such chute and yarding shall at no time be used to hold cattle of any other class.

b. Provide sufficient runways or alleyways, the floors of which shall be covered with

concrete or other material of an impervious nature so that reactor animals can travel from the holding pens through the sale-ring and the scale room, and be returned without leaving such floors.

c. Provide a separate unloading chute and a division of yarding for handling cattle originating in certified brucellosis-free herds or in negative herds from modified certified brucellosis areas. Such chute may be used for handling cattle of unknown brucellosis health status.

d. Provide sufficient runways or alleyways, the floors of which are covered with concrete or other material of an impervious nature so that animals can travel from holding pens through sale-ring and scale room and be returned without leaving such floors.

2.6(3) Physical facilities and equipment necessary to qualify for Class "B" (state-federal) approved markets.

Class "B" certificates of approval will be issued to auction markets meeting the same requirements as listed under 2.6(2) except items "a" and "b"; and to marketing agencies having facilities to maintain the identity and brucellosis health status of the various classes of cattle received.

2.6(4) Nonapproved markets. Nonapproved markets will not be permitted to receive cattle originating outside the state of Iowa, except such cattle that have met both state and federal requirements prior to entry, but must meet the same requirements as state-federal specifically approved markets in handling and releasing cattle to move intrastate and must meet all federal regulations under Title 9, Part 78—C.F.R., as well as the requirements of the state of destination in releasing cattle to move interstate. Cattle from certified herds and areas passing through such markets shall be deemed to have lost their status and must meet the requirements of 2.7(1) through 2.7(6). If brucellosis reactor animals are disclosed on tests within nonapproved markets, they shall be placed in a holding pen separate and apart from other cattle. Such animals must be sold or moved from the holding pen direct to slaughter.

2.7(163) Requirements for sale of all bovine animals. All animals must pass a negative test for brucellosis unless they can be classified under one of the following exemptions:

2.7(1) Steers and spayed heifers.

2.7(2) Female calves for dairy and breeding purposes, under eight months of age.

2.7(3) Female animals and bulls of recognized beef type, sold for feeding and grazing purposes.

2.7(4) Animals consigned direct to slaughter.

2.7(5) Official vaccinates under thirty months of age if accompanied by an official vaccination certificate.

2.7(6) Cattle accompanied by test charts and identified as having passed a negative test within thirty days.

2.7(7) Cattle from modified certified herds or modified certified brucellosis areas, providing they do not originate from a herd under quarantine, and further provided they are handled in accordance with 2.6(163), 2.6(2) "d". If such cattle are consigned by a dealer or pass through a nonapproved market, however, they lose their identity and brucellosis health status and must be handled according to 2.7(1) through 2.7(6) above. Known brucellosis reactors shall be handled in accordance with 2.6(163), 2.6(2) "a" and "b".

After the cattle are classified and identified, according to the purpose for which they are to be sold, this information shall be recorded on the check-in slip. All check-in slips, vaccination certificates, test charts, permits or other official documents shall be given to the official veterinary inspector. The veterinary inspector shall be held responsible for checking all animals and determining if the animals qualify under these exemptions. Animals that do not qualify must be tested or sold for slaughter.

2.8(163) Testing and vaccinating. All animals classified to be tested shall be tested prior to sale. All brucellosis tests shall be reported on the regular brucellosis test form ADE 8-28, and duplicate blood samples of all animals tested shall be forwarded to the Brucellosis Diagnostic Laboratory, Iowa State University, Ames, Iowa. All unvaccinated female calves not less than four months or more than eight months to be returned to Iowa farm for dairy or breeding purposes should be vaccinated against brucellosis with *Brucella Abortus* vaccine strain nineteen at owner's expense, before being released.

2.9(163) Order of sale through auction markets. The following order shall be maintained in the sale of the various classes of cattle through auction markets whenever applicable:

2.9(1) Cattle from certified herds and modified certified brucellosis areas.

2.9(2) Animals having passed a negative test within thirty days and official vaccinates under thirty months of age.

2.9(3) Beef cattle sold for feeding and grazing.

2.9(4) Animals consigned direct to a slaughter.

2.9(5) Brucellosis reactor animals.

2.10(163) Releasing cattle. The veterinary inspector in charge of the livestock market shall be held responsible for seeing that all animals are released in conformance with Iowa laws, rules and federal regulation Title 9, Part 78—C.F.R., where interstate movement is involved. All release forms must be signed, stamped, or otherwise approved by the veteri-

narian or someone authorized by him to do so. Any stamp so used must be initialed by the person by whom it is used. The livestock market management shall co-operate to see that all animals are released only on properly stamped or veterinary approved release forms.

2.11(163) Movement of cattle into modified certified brucellosis areas within Iowa. Cattle moving into a modified certified brucellosis area within Iowa on a negative thirty-day test only shall be quarantined, held separate and apart from other cattle, and retested at owner's expense in not less than thirty days nor more than sixty days.

[Filed December 23, 1959; amended February 1, 1960]

CHAPTER 3

IMPORTATION OF LIVESTOCK AND POULTRY INTO THE STATE OF IOWA

3.1(163) General.

3.1(1) No animal, including poultry or birds of any species that is affected with, or that has been recently exposed to any infectious, contagious or communicable disease or that originates from a quarantined area, shall be shipped or in any manner transported or moved into Iowa; except, animals approved for interstate shipment for immediate slaughter, by the animal disease eradication division, United States department of agriculture.

3.1(2) All livestock or poultry shipped or in any manner transported or moved into Iowa shall be accompanied by an official health certificate or permit or both when required which must be attached to the waybill or shall be in possession of the driver of the vehicle or the person in charge of the animals.

3.2(163) Official health certificate.

3.2(1) An official health certificate is a legible record accomplished on an official form of the state of origin, issued by an accredited veterinarian and approved by the livestock sanitary official of the state of origin; or an equivalent form of the United States department of agriculture issued by a federally employed veterinarian.

3.2(2) A copy of the health certificate shall be forwarded immediately to the livestock sanitary official of the state of origin for approval and transmittal.

3.2(3) Health certificates on swine shall not be valid more than forty-eight hours from date of inspection. Certificates on all other livestock and poultry shall not be valid more than thirty days from date of inspection.

3.3(163) Permits.

3.3(1) Requests for permits should be directed to the Division of Animal Industry, Statehouse, Des Moines, Iowa 50319. Day and night phone number 515-281-5547.

3.3(2) All animals and poultry entering the state of Iowa under permit shall be consigned to a corporation or an individual who is a legal resident of the state of Iowa or to a legal agent authorized by law to do business within the state.

3.3(3) All permits shall be valid for one shipment only and will be void fifteen days after date of issuance.

3.4(163) Cattle.

3.4(1) Apparently healthy cattle of any class may be consigned to public stockyards or a slaughtering establishment under federal inspection, or to a livestock market or a slaughtering establishment jointly approved by the Iowa department of agriculture and the United States department of agriculture when accompanied by an official certificate, waybill or a signed owner's certificate, stating:

- a. Destination of livestock
- b. Purpose of movement
- c. Number of animals
- d. Point of origin
- e. Name and address of consignor.

3.4(2) Scabies. Cattle originating from herds or areas under quarantine for cattle scab will not be admitted.

3.4(3) Tuberculosis. Cattle of all classes may enter the state of Iowa when originating from a tuberculosis modified accredited area from a herd not under quarantine, or meet one of the following requirements:

- a. Originate from a negative herd tested within twelve months prior to entry, showing date of herd test.
- b. Negative tuberculin test applied within thirty days prior to entry.

3.5(163) Brucellosis—cattle.

3.5(1) Same as federal requirements for the interstate movement with the following additions: All brucellosis tests of cattle shall be conducted by state or federal laboratories, or by approved laboratories under the direct supervision of the livestock sanitary official of the state of origin. All cattle regardless of breed, entering with negative brucellosis test will be subject to quarantine to be retested for brucellosis no sooner than thirty days nor later than sixty days from date of last test.

3.5(2) No test required but waybill or health certificate necessary for the following classes:

- a. Cattle going direct for immediate slaughter to an approved slaughter establishment.
- b. Cattle going direct to a public stockyard or to a state-federal approved livestock market.

3.5(3) Steers and spayed heifers must be accompanied by a health certificate or permit, and no test required.

3.5(4) Cattle for dairy and breeding purposes. Cattle for dairy and breeding purposes

may enter from a herd not under quarantine, accompanied by an official health certificate from the state of origin, showing individual identity of all animals. All female cattle born after July 1, 1963, having reached the age of nine months must have been officially vaccinated for brucellosis prior to entry. Such vaccination meeting all brucellosis requirements for entry until the animal reaches the age of thirty months.

a. Dairy type females and bulls under eight months of age may enter on a health certificate. (No test or permit required.)

b. All females over thirty months of age, bulls over eight months of age (including brucella vaccinates) and females born before July 1, 1963, when not official vaccinates under thirty months of age must meet one of the following requirements:

(1) Originate from a certified brucellosis-free herd, showing date of last test and herd certification number.

(2) Originate from negative herds in modified certified areas providing the entire herd of origin has passed a negative test within twelve months prior to entry, date of test to be shown on health certificate.

(3) Proved negative to a brucellosis test conducted within thirty days prior to entry.

3.5(5) Feeding or grazing. Female cattle of recognized beef type, under twenty-one months of age may enter under feeder quarantine for a period not to exceed twelve months (no test, but official certificate and a permit required). Steers and spayed heifers, official certificate or permit required. Note: Springer heifers or heifers with calves by side will not be admitted for feeding or grazing purposes. Such cattle shall be classified as breeding cattle and meet the requirements as set forth above, 3.5(4).

3.5(6) However, female calves admitted for feeding or grazing purposes, if officially vaccinated at private expense, may be released from feeder quarantine for brucellosis.

3.6(163) Dogs.

3.6(1) All dogs shall be accompanied by a health certificate. Dogs four months of age or older must be vaccinated for rabies by one of the following methods:

a. Modified live virus vaccine (chick embryo origin) not more than two years prior to entry.

b. Killed virus vaccine (caprine origin) not more than one year prior to entry.

Exceptions: Dogs for exhibition and performing dogs entering for a limited period of time.

3.7(163) Goats.

3.7(1) Goats for dairy and breeding purposes may enter the state when meeting the following requirements:

a. Originate from a herd not under quarantine.

b. Proved negative to a brucellosis test conducted within a thirty-day period prior to entry.

c. Originate from a tuberculosis modified accredited area, or meet one of the following requirements:

(1) Originate from a negative herd tested within twelve months prior to entry, showing date of herd test.

(2) Negative tuberculin test applied within thirty days prior to entry.

3.8(163) Horses, mules and asses.

3.8(1) Official health certificate showing freedom from disease.

3.9(163) Sheep.

3.9(1) All sheep entering the state of Iowa for breeding or feeding purposes shall be accompanied by a permit and a health certificate.

a. All sheep must have been dipped in an approved dip within ten days prior to entry, unless originating in states or areas designated as scab-free by the ADE-USDA and qualifying under 1 or 2 below:

(1) Moved direct from point of origin to point of destination, without being diverted enroute, or

(2) Enter Iowa through public stockyards under federal supervision, provided the identity of the animals is maintained and they are handled separate and apart from sheep originating in scab-infested areas or sheep of unknown origin.

b. *Slaughter.* Sheep can enter the state of Iowa when consigned direct for immediate slaughter to an approved slaughter establishment under federal supervision no dipping required.

c. *Scrapie.* Sheep from premises where scrapie has been known to exist within the last forty-two months or sheep from flocks under surveillance for scrapie will not be admitted into Iowa.

3.10(163) Swine.

3.10(1) Interstate movement shall meet all federal requirements. Swine that have been fed raw garbage will not be admitted into Iowa for any purpose, except for immediate slaughter to a slaughtering establishment under federal inspection and in compliance with federal requirements for interstate shipment. Swine for feeding and breeding not immunized for hog cholera may enter only when meeting federal regulations.

3.10(2) Slaughter swine may enter without health certificate when consigned directly to a public stockyard, or slaughter establishment under federal supervision, or when sold or consigned to an assembly station which must move the swine directly to slaughter.

3.10(3) Breeding or feeding.

a. Health certificate including a statement by a qualified veterinarian that the swine have been inspected within forty-eight hours prior to entry and found healthy.

b. Hog-cholera vaccination required under one of the following methods:

(1) Killed or inactivated hog-cholera vaccine not less than twenty-one days nor more than six months prior to entry.

(2) Modified live virus and anti-hog-cholera serum, not less than twenty-one days nor more than one year prior to entry.

(3) Modified live virus and anti-hog-cholera serum immunized less than twenty-four hours, to be in transit not more than forty-eight hours to point of destination.

c. All swine imported for breeding or feeding purposes not having been vaccinated twenty-one days or more prior to entry shall be vaccinated and quarantined on purchaser's premises, and shall be maintained separate and apart from all other swine for a period of twenty-one days from date of vaccination.

d. The swine shall be identified by an ear tag affixed to either ear, bearing a number and the state of origin.

Exceptions:

(1) Registered swine for exhibition or breeding purposes.

(2) Swine for the manufacture of biological products.

(3) Swine for immediate slaughter.

e. *Brucellosis.* All breeding swine four months of age and over must meet one of the following requirements:

(1) Negative to brucellosis test conducted by an official laboratory of the state of origin within thirty days of entry.

(2) Originate from a validated brucellosis-free herd, tested within twelve months prior, the health certificate shall include the certificate herd number and date of last test.

3.11(163) Poultry. Poultry hatching eggs, baby chicks or turkey poultts must be accompanied by an official health certificate from the state of origin.

3.11(1) Chickens.

a. All poultry-hatching eggs or baby chicks must originate from flocks or hatcheries that have a pullorum-typhoid clean rating given by the official state agency of the national poultry improvement plan or other state agency of the state of origin and so stated on the health certificate.

b. All boxes, crates and containers shall be new or disinfected before being used to move poultry into the state of Iowa, and identified with a label co-operating in the national poultry improvement plan or other official state agency.

3.11(2) Turkeys.

a. No turkeys shall be imported for breeding purposes and no turkey eggs shall be imported for hatching purposes unless they originate from a flock that has been tested annually and can be classified as follows:

(1) Pullorum-typhoid clean as provided by the national turkey improvement plan or other official state agency.

(2) *Salmonella typhimurium* tested and no reactor found.

(3) *Mycoplasma gallisepticum* tested and no reactor found.

b. No person shall import turkeys or turkey eggs for breeding or hatchery purposes unless such turkeys or turkey eggs comply with the requirements of this rule.

c. All turkeys or turkey poultts and turkey eggs imported into Iowa shall be accompanied by a certificate signed by the chief livestock official of the state of origin certifying that such turkeys, turkey poultts, or turkey eggs are from flocks complying with this rule or an equivalent program of the state of origin.

3.11(3) Health certificate or permits will not be required for the importation of poultry for immediate slaughter.

[Filed December 3, 1964]

DAIRY AND FOOD DIVISION

CHAPTER 4

FOOD RULES

4.1(159) In the case of loaf bread where the plain or stock wrapper is used an insert slip, three by six inches, may be used, provided it is so placed as to be plainly visible through the wrapper, and the printing thereon must have the approval of the department.

4.2(159) Unwrapped bread retailed at its place of manufacture is not considered by the department as food sold in package form, but it must be labeled as to its net weight either with a placard or on the container. Unwrapped bread and other bakery products may be transported to a place other than the place of manufacture provided the bread and other bakery products are transported in cabinets or other containers that are clean, sanitary and have tight closures to protect the bread or other bakery products from dust, dirt and contamination.

4.2(1) The bread and other bakery products may be displayed for sale at places other than their place of manufacture unwrapped, providing they are displayed in cases that are clean, sanitary and have closures affixed thereto and that the labeling requirements are complied with.

4.3(159) Benzoate of soda, in quantities not exceeding one-tenth of one percent, may be added to foods. The addition of benzoate of soda shall be plainly stated on the label of each package.

4.4(159) The department rules that a quart of strawberries shall weigh at least twenty ounces, with a reasonable tolerance of not more than one ounce under, when the quart box is well filled.

4.5(159) The word "Ham", except when prefixed by a word or words indicating the thigh of some other animal, shall be considered as applied only to the thigh of a hog prepared

for food, and must not be used in connection with the sale of a pork shoulder.

4.6(159) The state department of agriculture adopts the standards proclaimed by the United States department of agriculture pertaining to meats and meat products.

4.7(159) All metal ice cream containers in addition to being thoroughly washed, must be lined with a parchment paper liner before being filled.

[Filed December 6, 1962]

CHAPTER 5
FOOD STANDARDS

5.1(190) **French dressing.** French dressing is the separable liquid food or the emulsified viscous fluid food prepared from and containing not less than thirty-five percent by weight of edible butter oil or vegetable oil and one or both of the acidifying ingredients specified in 5.1(1) hereof. One or both of the optional emulsifying ingredients specified in 5.1(2) hereof may be added provided, however, that the quantity thereof shall be not more than seventy-five hundredths of one percent by weight of the finished French dressing. It may be seasoned or flavored with any one or more of the ingredients specified in 5.1(3) hereof.

5.1(1) *Acidifying ingredients.*

a. Any vinegar or any vinegar diluted with water, or any such vinegar or diluted vinegar mixed with the additional optional acidifying ingredient, citric acid, but in any such mixture the weight of citric acid is not greater than twenty-five percent of the weight of the acids of the vinegar or diluted vinegar calculated as acetic acid. For the purpose of this paragraph, any blend or two or more vinegars is considered to be a vinegar.

b. Lemon juice or lime juice or both or any such juice in frozen, canned, concentrated, or dried form, or any one or more of these diluted with water.

5.1(2) *Optional emulsifying ingredients.*

a. Gum acacia (also called gum arabic), carob bean gum (also called locust bean gum), guar gum, gum karaya, gum tragacanth, extract of Irish moss, pectin, propylene glycol-ester of alginic acid, sodium carboxymethylcellulose, or any mixture of two or more of these.

b. Liquid egg yolks, frozen egg yolks, liquid whole eggs, frozen whole eggs, or any one or more of these with liquid egg white or frozen egg white. For the purpose of this paragraph, the quantity of egg-yolk-containing ingredients is calculated as the weight of the egg-yolk-solids contained therein.

5.1(3) *Seasoning or flavoring.*

a. Salt.

b. Sugar, dextrose, corn syrup, invert sugar syrup, nondiastatic maltose syrup, glucose syrup, honey. The foregoing sweetening ingredients may be used in syrup or dried form.

c. Mustard, paprika, other spice, or spice oil or spice extract.

d. Monosodium glutamate.

e. Any suitable, harmless food seasoning or flavoring (other than imitations).

f. Tomato paste, tomato puree, catsup, sherry wine.

5.2(190) **Mayonnaise dressing.** Mayonnaise dressing is the emulsified semisolid food prepared from edible butter oil or vegetable oil; one or both of the acidifying ingredients specified in 5.1(1), except that if under (1) thereof vinegar diluted with water is used, it shall be to an acidity, calculated as acetic acid, of not less than two and one-half percent by weight, and if an ingredient or ingredients specified under (2) thereof be used diluted with water, it shall be to an acidity, calculated as citric acid, of not less than two and one-half percent by weight; and one or more of the egg-yolk-containing ingredients specified under 5.1(2) "b". Mayonnaise dressing may be seasoned or flavored with any one or more of the seasonings and flavoring ingredients specified in 5.1(3), except that no turmeric or saffron is used and no spice oil or spice extract is used which imparts to the dressing a color simulating the color imparted by egg yolk, and except "f" thereof.

5.3(190) **Salad dressing.** Salad dressing is the emulsified semisolid food prepared from edible butter oil or vegetable oil; one or both of the acidifying ingredients specified in 5.1(1); one or more of the egg-yolk-containing ingredients specified in 5.1(2) "b", and a cooked or partly cooked starchy paste prepared with a food starch, tapioca flour, wheat flour, rye flour, or any one or more of these; in the preparation of such starchy paste, water may be added. One or more of the optional emulsifying ingredients specified in "a" of 5.1(2) may be added. Salad dressing may be seasoned or flavored with any of the ingredients specified in 5.1(3), except that no turmeric or saffron is used and no spice oil, spice extract, or any other seasoning or flavoring is used which imparts to the salad dressing a color simulating the color imparted by egg yolk, and except "f" thereof.

5.4(190) **Labeling of dressings.** When the additional optional acidifying ingredient as authorized in 5.1(1) is used, the label shall bear the statement "Citric acid added" or "With added citric acid" and where an optional emulsifying ingredient specified in "a" of 5.1(2) is used, the label shall bear the statement "..... added" or "With added", the blank being filled with the common name or names of the emulsifying ingredient or mixture of the emulsifying ingredients used. The statement showing the optional ingredients present shall conspicuously appear preceding or following the name of the dressing without intervening written, printed or graphic matter.

5.5(190) **Tests for mastitis and results.** A cow shall be considered to be in a mastitic

condition whenever a milk sample taken therefrom shall exceed any of the following screening tests and test results:

California mastitis test	Weak positive (CMI 1)
Catalase test	30% oxygen
Milk quality test	Definite reaction
Modified whiteside test	Position (1+)
Wisconsin mastitis test	WMT value of 27

and a confirmatory count indicates a presence of somatic cells greater than 1,500,000 per ml when a direct microscopic or electronic somatic cell counting technique is used on the original milk sample.

These rules are intended to implement chapter 190.

[Filed September 2, 1952; amended August 18, 1970]

CHAPTER 6

PRODUCTION AND SALE OF EGGS

6.1(196) Definitions.

6.1(1) The department shall construe the meaning of the word "processor" as contained in section 196.3 to be a person who stores eggs intended only for conversion to liquid, frozen or dried form or who converts eggs to liquid, frozen or dried form.

6.1(2) "Eggs unfit for human food" are described in the U.S. Standards and Grades of Eggs as follows:

Loss. An egg that is inedible, smashed, or broken so that the contents are leaking, cooked, frozen, contaminated, or containing bloody whites, large blood spots, large unsightly meat spots, or other foreign material.

Inedible eggs. Eggs of the following descriptions are classed as inedible: Black rots, white rots, mixed rots (addled eggs), sour eggs, eggs with green whites, eggs with stuck yolk, moldy eggs, musty eggs, eggs showing blood rings, eggs containing embryo chicks (at or beyond the blood stage), and any eggs that are adulterated as such term is defined pursuant to the Federal Food, Drug, and Cosmetic Act.

6.2(196) License.

6.2(1) Each person or firm operating at more than one location must provide a list of

all locations when applying for a license. Each subsidiary plant will be furnished a copy of the original license.

6.3(196) Producers and hatcheries exempted.

6.3(1) Hatcheries exempted under this section handling eggs to be used for hatching purposes, shall clearly identify such eggs by marking the ends of each case clearly with the words "Eggs for Hatching" in letters a minimum of one-half inch in height.

6.3(2) Producers selling to anyone other than direct to consumers must obtain a license as required in section 196.4. Institutions, restaurants, schools, or any other business, facility or place in which eggs are prepared or offered for food for use by its patrons, residents, inmates or patients shall not be deemed to be consumers. (See section 196.14.)

6.4(196) Retailers exempted.

6.4(1) There is no requirement in the Iowa Code for egg retailers or egg dealers to furnish bond.

6.5(196) Candling and grading required.

6.5(1) Eggs to be resold other than as manufactured eggs may be candled and graded by other than first buyer providing producer identity is retained. (See section 196.15.)

6.6(196) Candling and grading room.

6.6(1) The department survey shall include an examination of and evaluation of the lighting of the room, the type of equipment being used, volume of eggs handled, the candling and grading procedures and the adequacy of personnel and equipment to handle the volume of eggs to be candled or graded. General sanitation must reflect that an edible product is being handled.

6.7(196) Grades.

6.7(1) The United States Standards for Consumer Grades and Weight Classes for shell eggs shall be the standards of grade requirements for Iowa. These grades shall include AA, A, and B. Sizes shall be Jumbo, Extra Large, Medium, Small and Peewee.

TABLE 1 — SUMMARY OF IOWA CONSUMER GRADES FOR SHELL EGGS

Iowa Consumer Grade	At least 80 percent (lot average) ¹ must be	Tolerance Permitted ²	
		Percent	Quality
Grade AA or Fresh Fancy Quality	AA Quality.	15 to 20 Not over 5 ³	A. B, C, or Check.
Grade A	A Quality or better.	15 to 20 Not over 5 ³	B. C or Check. C.
Grade B	B Quality or better.	10 to 20 Not over 10 ³	Dirty or Check.

1. In lots of two or more cases or cartons, see table 2 of this section for tolerances for individual case or carton within a lot.

2. Within tolerance permitted, an allowance will be made at receiving points or shipping destination for ½ percent leakers in Grades AA, A, and B.

3. Substitution of higher qualities for the lower qualities specified is permitted.

TABLE 2 — TOLERANCE FOR INDIVIDUAL CASE OR CARTON WITHIN A LOT

Iowa Consumer Grade	Case—minimum quality — percent ¹	Carton—minimum quality — number egg ¹
Grade AA or Fresh Fancy Quality	70% AA 20% A 10% B, C or Check.	8 eggs AA. 2 eggs A. 2 eggs B, C or Check.
Grade A	70% A 20% B 10% C or Check.	8 eggs A. 2 eggs B. 2 eggs C or Check.
Grade B	70% B 10% C 20% Check or Dirty.	8 eggs B. 2 eggs C. 2 eggs Check or Dirty.

1. Substitution of higher qualities for lower qualities specified is permitted.

TABLE 3 — IOWA WEIGHT CLASSES FOR CONSUMER GRADES FOR SHELL EGGS

Size or Weight class	Minimum net weight per dozen	Minimum net weight per 30 dozen	Minimum weight for individual eggs at rate per dozen
	OUNCES	POUNDS	OUNCES
Jumbo	30	56	29
Extra Large	27	50½	26
Large	24	45	23
Medium	21	39½	20
Small	18	34	17
Peewee	15	28	—

6.8(196) Records required.

6.8(1) The first licensed buyer or the person candling eggs for the first licensed buyer, shall keep a daily record of the number of eggs received from each producer that are to be candled or candled and graded. Such records are to be kept for a period of six months and shall be available for inspection by a duly authorized representative of the department of agriculture.

6.9(196) Certificate.

6.9(1) Eggs moving from an egg-grading plant to a processor must have stamped on the ends of each case the grade and the name and address or code number of firm doing such grading. All previous labels on case shall be defaced before applying new label.

6.9(2) The words "eggs that are being processed by a processor" shall be construed by the department to mean the eggs received from producers by firms actually engaged in breaking eggs for liquid, frozen or dried products, at the same establishment where the said eggs are received.

These rules are intended to implement chapter 196.

[Filed January 11, 1966]

CHAPTER 7 DAIRY RULES

7.1(194) The department recognizes the Babcock test or the Gerber test as an approved method of testing milk or cream for milk-fat, and other dairy products as specified in Standard Methods for the Examination of Dairy Products (11th Edition). Said publication is hereby incorporated into this rule by this reference and made part thereof insofar as applicable, a copy of which is on file with the secretary of state.

7.1(1) All milk or cream, graded or tested, as provided by chapters 194 and 195 of the Code shall be graded and tested by samples which shall be taken in the following manner:

a. Samples may only be taken from vats or tanks which pass the required organoleptic test; the temperature of bulk tanks from which the sample is to be taken must be not higher than 50° F.

b. The temperature of the bulk tank shall then be recorded.

c. The quantity of the milk or cream in the bulk tank shall then be measured and the measurement recorded.

d. The bulk tank shall then be agitated for a period of not less than five minutes.

e. The sample shall then be taken by using a sterile dipper and the liquid shall be placed in an approved sterile container.

f. The sample of milk or cream shall then be immediately stored at a temperature of between 32° F. and 40° F.

7.2(194) The following makes of guaranteed test bottles and pipettes are approved by

the department for universal use in Iowa: The Nafis, the Kimball, and the Wagner. All test bottles should be graduated to the half point.

7.3(194) All persons using the Babcock test or the Gerber test shall retain within the premises an exact copy of all transactions and all appliances where the test is used, as well as samples of all milk and cream tested, properly labeled so that a representative of the department by testing said samples with said appliances can check the cream bought with the cream on hand and thereby verify the test given in each transaction, both copies and cream samples must be held until 6:00 p.m. of the second day following the application. When Sundays or legal holidays intervene, the samples shall be held one additional day. When considered necessary, the department may require any sample held for a longer period.

7.4(194) All stations shall be equipped with test bottles graduated to the half point and all cream testing should be read to the half point.

7.5(194) The examination for a tester's license must be approved by the department.

7.6(194) When cream stations are conducted in connection with a produce house, garage, oil station, barber shop, tire shop, cigar factory, shoe repair shop, harness shop, or other businesses that have objectionable odors or material contaminating factors, the stations must be partitioned off by a dust-proof tight wall, with outside light and ventilation.

7.7(194) No common carrier or other person shall transport any crate of poultry or similar dirt distributing packages on top of milk or cream cans.

7.8(194) The handling of hides, furs, live poultry or other articles that might contaminate is prohibited in cream rooms, or any room where food is prepared or handled.

7.9(194) In case where a flavor is added to a milk or skimmed milk drink or compound, it is not considered by the department as violating section 190.6 of the Code, when the fat of said flavor does not exceed one-half of one percent of the whole and said compound is labeled as required by section 189.11 of the Code.

7.10(194) Standards for the production, processing and distribution for grade "A" pasteurized, pasteurized (grade not declared) and grade "A" raw milk shall conform to United States public health service recommended milk ordinance and code, 1953 edition, which is hereby incorporated into this rule by this reference and made a part thereof insofar as applicable; a copy of which is on file with the secretary of state.

7.11(194) A rating of ninety percent or more calculated according to the rating system as contained in public health service Publication No. 678, "Methods of Making Sanitation Ratings of Milk Sheds", shall be necessary to

receive or retain a grade "A" certification under chapter 192. Said publication is hereby incorporated into this rule by this reference and made a part thereof insofar as applicable; a copy of which is on file with the secretary of state.

7.12(194) Evaluation of methods and reporting of results for approval of a laboratory shall be based on procedures and tests contained in Standard Methods for the Examination of Dairy Products (11th Edition) and Methods of Analysis of the Association of Official Agricultural Chemists (9th Edition). Said publications are hereby incorporated into this rule by this reference and made a part thereof insofar as applicable; a copy of each being on file with the secretary of state.

MANUFACTURING MILK

7.13(194) Legal milk.

7.13(1) All milk delivered to a creamery, cheese factory or milk processing plant shall be subject to an examination, as provided in chapter 194, which shall be made at the plant if delivered in separate containers or before mixing with other milk collected in a bulk tank container and the examination shall be made by a licensed grader.

7.13(2) Every creamery, cheese factory or milk processing plant which gathers its milk by a bulk tank vehicle whether operated by an independent contractor or otherwise, shall provide for a licensed grader in the operation of said bulk tank and for examination of said milk by the grader upon receipt thereof at the bulk tank.

7.13(3) The common change occurring in milk is the development of acidity, causing an acid flavor and odor, or even complete or partial coagulation. Other undesirable changes include sweet curdling, ropiness, gassiness, and abnormal flavors, odors and colors. All milk showing any of these defects or any other defect, must be rejected.

7.13(4) The presence of any insect in milk shall be sufficient cause for rejection.

7.14(194) New producers.

7.14(1) A "new producer" is a person selling milk for the first time who, therefore, has not previously produced milk under this Act. A person who formerly produced farm separated cream and is now selling, for the first time, whole milk for manufacturing purposes is considered a new producer. Similarly a producer who previously supplied Grade "A" milk, or sold milk in another state not reciprocating on quality transfers and offering manufacturing milk for sale in the state of Iowa for the first time, shall be classified as a new producer. A new producer is also one who has not offered manufacturing milk for sale since the enactment of this milk grading law on July 4, 1959.

7.14(2) A licensed milk grader must examine, smell and taste the first lot of milk

purchased from a new producer. This milk must also be tested immediately for extraneous matter or sediment content. However, it is not necessary to subject the milk of the new producer on the first delivery to a bacterial quality test. A test of this nature, however, must be made on a properly collected sample from this producer within fifteen days thereafter.

7.14(3) If the sediment disc on the can of milk selected for test shows sediment in excess of 2.50 mg., all cans in the shipment shall be tested for sediment content in the same manner. Any milk showing sediment in excess of 2.50 mg. shall be rejected by the creamery, cheese factory or milk processing plant and not used for human consumption.

7.15(194) Bacterial tests and classes.

7.15(1) To clarify some of the difficulties that may be encountered when attempting to express the results of these tests, the following explanations are presented:

7.15(2) Class I milk.

a. Resazurin test: Color of dye-milk mixture not reduced beyond 5P7/4 in two and three-fourths hours. Methylene blue test: Color of dye-milk mixture not reduced in five and one-half hours.

b. The direct microscopic (clump) count or standard plate count was 200,000 per milliliter or less.

7.15(3) Class II milk.

a. Resazurin test: Color of dye-milk mixture not reduced beyond 5P7/4 in one and one-half hours, but reduced beyond 5P7/4 in two and three-fourths hours. Methylene blue test: Color of dye-milk mixture not reduced in two and one-half hours, but reduced in five and one-half hours.

b. The direct microscopic (clump) count or standard plate count was more than 200,000 but not more than 3,000,000 per milliliter.

7.15(4) Class III milk (probationary milk).

a. Resazurin test: Color of dye-milk mixture reduced beyond 5P7/4 in more than three-fourths hour, but less than one and one-half hours. Methylene blue test: Color of dye-milk mixture reduced in more than one hour, but less than two and one-half hours.

b. The direct microscopic (clump) count or standard plate count was over 3,000,000 per milliliter.

7.16(194) Testing and exclusion of Class III milk.

7.16(1) If a producer desires to change to another plant or factory, it is required that his first shipment of milk be accompanied by a written quality release form from his former purchaser. This quality release form must be requested by the producer in person or in writing from the manager of the plant previously purchasing his milk. (Plant being asked for quality release shall give it to person with written order or deliver to producer making the request.)

7.16(2) If the quality release form of this producer shows that his last test for bacterial quality indicated Class III milk, the new purchaser must then test his first shipment of the transferring producer's milk by:

a. Organoleptic grading (physical appearance, taste and smell).

b. Sediment or extraneous matter.

c. An estimate of bacterial quality must be run within seven days from the last test date entered on the transfer form.

7.16(3) In other words, his previous record of bacterial quality is transferred with him. For example, if a producer has had two consecutive Class III bacterial estimates at one plant and then decides to sell his milk to another plant, he may not start as a new producer without previous history. This section requires that his milk be tested for four consecutive weeks if he has not improved the quality of his milk during this period. Upon transferring to a new plant, the next bacterial test is entered on his record as the third of the four required tests.

7.16(4) If the fourth consecutive test is still Class III, this producer's milk may not be purchased by any plant for human consumption. The plant refusing this milk is required to notify the area resident inspector of the dairy and food division of the Iowa department of agriculture, immediately, in writing.

7.17(194) Unlawful milk.

7.17(1) Four weekly Class III bacterial tests make rejection compulsory and said milk shall not be accepted thereafter by any plant or creamery until authorized by the secretary of agriculture.

7.18(194) Price differential.

7.18(1) All producers are to be treated equally.

7.19(194) Penalties for plants and producers.

7.19(1) The scope of this section is broad, covering all plant employees, operators and milk haulers.

7.19(2) A producer selling milk to a new purchaser without first obtaining a quality release from the former buyer, would be an example of noncompliance with the law and these rules.

This rule is intended to implement chapters 194 and 195 of the Code.

[Filed November 28, 1962; amended March 11, 1964; April 22, 1968]

CHAPTER 8

AGRICULTURAL SEEDS

8.1(199) The term "agricultural seeds" shall mean, in addition to those listed in section 199.1(2) of the Code, all such seeds listed in section 201.2 (h) Rules and Regulations, Federal Seed Act of August 9, 1939, U. S. department of agriculture, agricultural marketing

service, No. 156 and amendments, with the following exceptions:

Alfilaria-Erodium cicutarium (L).

Bluegrass, annual-Poa annua L.

Cheese, soft-Bromus mollis L.

Hemp-Cannabis sativa L.

Johnson grass-Sorghum halepense (L.)

Mustard-Brassica juncea (L)

Mustard, black-Brassica nigra

Rape, bird-Brassica campestris L.

Rape, turnip-Brassica campestris vars.

Sorghum alnum-Sorghum alnum

Wild-rye, Canada-Elymus canadensis L.

Wild-rye, Russian-Elymus junceus

8.2(199) Seed testing, sampling, and analysis shall be regulated by sections 201.39 to and including 201.63 and 201.65; rules and regulations, federal seed Act, insofar as they do not conflict with Iowa law.

8.3(199) Lawn and turf mixtures. For lawn and turf mixtures the name of the kind or kind and variety of seed components to be named in order of their predominance may be met by naming the kind or kind and variety of seed components in the order of their predominance under the separate headings "Fine Textured Grasses" and "Coarse Kinds". The following shall be named as "Fine Textured Grasses": Colonial bentgrass (*Agrostis tenuis*), creeping bentgrass (*Agrostis palustris*), velvet bentgrass (*Agrostis canina*), Kentucky bluegrass (*Poa pratensis*), rough bluegrass (*Poa trivialis*), wood bluegrass (*Poa nemoralis*), Canada bluegrass (*Poa compressa*), red fescue (*Festuca rubra*), chewing fescue (*Festuca rubra var. commutata*) and sheep fescue (*Festuca ovina*). All other kinds or kinds and varieties must be listed under the heading "Coarse Kinds".

8.4(199) Definitions.

[The following has been added to the list of noxious weed seeds under the authority of section 199.1(4) of the Code.]

8.4(10)] Giant Foxtail—*Setaria Faberi*.

8.5(199) Labeling of treated seeds shall be regulated by section 201.31 "a" of the rules and regulations, federal seed Act, of August 1, 1939, U. S. department of agriculture Consumer and Marketing Service, No. 156 and amendments, insofar as they do not conflict with Iowa law.

These rules are intended to implement chapter 199 of the Code.

[Filed June 7, 1962; amended September 14, 1965; November 13, 1969]

CHAPTER 9

PESTICIDES

9.1(206) Definitions and standards.

9.1(1) The following definitions are hereby adopted.

a. The term "insecticide" means any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any insects and related forms which may be present in any environment whatsoever.

b. The term "fungicide" means any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any fungi.

c. The term "rodenticide" means any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating rodents or any other vertebrate animal which the secretary shall designate to be a pest.

d. The term "herbicide" means any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any weed or undesirable plant.

e. The term "nematocide" means any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating nematodes or subterranean pests.

f. The term "defoliant" means any substance or mixture of substances intended for causing the leaves or foliage to drop from the plant with or without causing abscission.

g. The term "desiccant" means any substance or mixture of substances intended for artificially accelerating the drying of plant tissue.

h. The term "nematode" means invertebrate animals of the phylum nemathelminthes and class nematoda, that is, unsegmented round worms with elongated, fusiform, or sac-like bodies covered with cuticle, and inhabiting soil, water, plants or plant parts; may also be called nemas or eelworms.

i. The term "insect" means any of the numerous small invertebrate animals generally having the body more or less obviously segmented, for the most part belonging to the class Insecta, comprising six-legged, usually winged forms, as, for example, beetles, bugs, bees, flies, and to other allied classes of arthropods whose members are wingless and usually have more than six legs, as, for example, spiders, mites, ticks, centipedes, and wood lice.

j. The term "fungi" means all non-chlorophyll-bearing thallophytes, that is, all non-chlorophyll-bearing plants of a lower order than mosses and liverworts as, for example, rusts, smuts, mildews, molds, yeasts, and bacteria, except those on or in living man or other animals.

k. The term "rodent" means any animal of the order Rodentia, including, but not limited to, rats, mice, rabbits, gophers, prairie dogs and squirrels.

l. The term "weed" means any plant which grows where not wanted.

9.1(2) Additional definitions and standards which are consistent and applicable to the pesticide Act shall be those established by the Association of American Pesticide Control Officials.

9.2(206) Methods of analysis.

9.2(1) The current methods of analysis of the Association of Official Agricultural Chemists of North America shall be adopted as the official methods insofar as they are

applicable, and such other methods shall be used as may be necessary to determine whether the product complies with the law.

9.3(206) Registration required.

9.3(1) No person shall distribute, give, sell, or offer to sell any pesticide which has not been registered with the department of agriculture.

9.4(206) Registration of products.

9.4(1) Two exact copies of the labeling of each proposed product shall be submitted with the application. Also, there shall be submitted an ingredient statement, which shall comply with the provisions of rule 9.13 herein, the proposed directions for use of the product, and a list of the specific pests, for control of which it is to be sold, if such information is not contained in the labeling. Other pertinent information concerning inert ingredients and physical properties of the product shall also be included on request by the secretary.

9.5(206) Registration, general application of.

9.5(1) A registration of a pesticide is held to apply to the product even though manufactured at or shipped from other than the registered address. When a product has been registered by a manufacturer or jobber, no registration shall be required of other sellers of the product so registered, provided shipments or deliveries thereof are in the manufacturer's or registrant's original, unopened, and properly labeled container.

9.6(206) Conditional refusal or cancellation of registration, and registration under protest.

9.6(1) Any of the following causes is sufficient to justify a conditional refusal or cancellation of registration of a product, with notice to the registrant of the manner in which the article, label, or other material fails to comply with the pesticide Act, and with opportunity for the registrant to make necessary corrections before resubmitting the product and the label.

a. If the labeling bears any statement, design or graphic representation relative thereto, or to its ingredients, which is false or misleading in any particular;

b. If the product is found to be an imitation of, or illegally offered for sale under the name of another pesticide;

c. If the labeling bears reference to Iowa registration number;

d. If the labeling accompanying the pesticide does not contain directions for use which are necessary and, if complied with, adequate for the protection of the public;

e. If the label does not contain a warning or caution statement which may be necessary and, if complied with, adequate to prevent injury to living man and other vertebrate animals;

f. If the label does not bear an ingredient statement on that part of the immediate

container and on the outside container or wrapper, if there be one, through which the ingredient statement on the immediate container cannot be clearly read under customary conditions of purchase. Provided, however, the secretary may permit the ingredient statement to appear prominently on some other part of the container, if the size or form of the container makes it impracticable to place it on the part of the retail package which is displayed;

g. If any word, statement, or other information required to appear on the label or labeling is omitted or not prominently placed thereon and in such terms as to render it likely to be read and understood under customary conditions of purchase and use;

h. If an insecticide, nematocide, antibiotic, bactericide, fungicide or herbicide is found to be injurious to living man or other useful vertebrate animals, or to vegetation (except weeds), to which it is applied or to the person applying such pesticide when used as directed or in accordance with commonly recognized safe practice; or if a plant regulator, defoliant or desiccant when used as directed is found to be injurious to living man or other vertebrate animals or vegetation to which it is applied, or to the person applying such pesticide; provided, however, that physical or physiological effect on plants or parts thereof shall not be deemed to be injurious, when this is the purpose for which the plant regulator, defoliant, or desiccant was applied in accordance with label claims and recommendations;

i. If the pesticide is misbranded;

j. If the registrant has been guilty of fraudulent and deceptive practices in the evasion or attempted evasion of the pesticide Act or any rules promulgated thereunder; provided, however, that no registration shall be revoked until the registrant shall have been given an opportunity for a hearing by the secretary or his agent;

k. If the registrant upon notice insists that corrections in the article, labeling, or other material as specified are not necessary, and requests in writing that the article be registered, the secretary shall register the article under protest and shall warn the registrant in writing of the apparent failure of the article to comply with the provisions of the pesticide Act and regulations thereunder. In such event the secretary shall publicize the fact through releases to duly recognized mass news media.

9.7(206) Changes in labeling or ingredient statement.

9.7(1) Changes in the labeling or ingredient statement in registered pesticides shall be submitted in advance to the secretary for his approval. The registrant must describe the exact change desired and proposed effective date and such other pertinent information that

justify such changes. After the effective date of a change in labeling or ingredient statement the product shall be marketed only under the new claims or ingredient statement, except that a reasonable time may be allowed by the secretary for disposal of properly labeled stocks of the old product. Changes in the composition shall not be allowed if such changes would result in a lowering of the product's value as a pesticide.

9.8(206) Label requirements.

9.8(1) Each package of pesticide sold separately shall bear a complete label. The label shall contain the name, brand or trade-mark of the product; name and address of the manufacturer, registrant or person for whom manufactured; directions for use which are necessary and if complied with, adequate for protection of the public; statement of net content in terms of weight or measure in general use; and an ingredient statement. The label of every pesticide, if necessary to prevent injury to man, other animals, and useful vegetation, must contain a warning or caution statement, in nontechnical language based on the hazard involved in the use of the pesticide. In addition, any pesticide highly toxic to man shall be labeled with a skull and cross-bones and with the word "poison" prominently in red on a background of distinctly contrasting color; the first-aid antidote for the poison shall be given and instructions for safe disposal of containers. Note: Products subject to deterioration may bear on their label a statement such as "not to be sold or used after . . . date . . ." The use of such a statement, however, in no way relieves the manufacturer of his responsibility for label claims.

9.9(206) Directions for use—when necessary.

9.9(1) Directions for use are required whenever they are necessary for the protection of the public. The public includes not only users of pesticides but also those who handle them or may be affected by their use, handling, or storage. Directions for use are considered necessary in the case of most small retail containers which go into the hands of users, and in the case of larger containers with the following exception:

Directions may be omitted if the pesticide is to be used by manufacturers in their regular manufacturing processes; Provided: The label clearly shows that the product is intended for use only in manufacturing processes, and bears an ingredient statement giving the name and percentage of each of the active ingredients.

9.10(206) Other claims.

9.10(1) No claim shall be made for products in any written, printed or graphic matter accompanying the product at any time which differ in substance from written representations made in connection with registration.

9.11(206) Name of product.

9.11(1) The name of the product shall appear on the labeling so as not to emphasize any one ingredient, or otherwise be misleading. It shall not be arranged on the label in such a manner as to be confused with other terms, trade names, or legends.

9.12(206) Brand names, duplication of, or infringement on.

9.12(1) A brand name is distinctive with reference to the material to which it applies and the registration of a pesticide under the same brand name by two or more manufacturers or shippers should be denied or refused. This principle applies also to the registration of brand names so similar in character as to be likely to be confused by the purchaser. In the event the same name or a closely similar one is offered by another manufacturer, the secretary may decline the said name a second time, for registration unless required to do so by an order of court.

9.13(206) Ingredient statement.**9.13(1) Location of ingredient statement.**

The ingredient statement must appear on that part of the label displayed under customary conditions of purchase except in cases where the secretary determines that, due to the size or form of the container, a statement on that portion of the label is impractical, and permits such statement to appear on another side or panel of the label. When so permitted, the ingredient statement must be in larger type and more prominent than would otherwise be possible. The ingredient statement must run parallel with other printed matter on the panel of the label on which it appears and must be on a clear contrasting background not obscured or crowded.

9.13(2) Names of ingredients. The well-known common name of the ingredient must be given or, if the ingredient has no common name, the correct chemical name. If there is no common name and the chemical composition is unknown or complex, the secretary may permit the use of a new or coined name which he finds to be appropriate for the information and protection of the user. If the use of a new or coined name is permitted, the secretary may prescribe the terms under which it may be used. A trade-mark or trade name may not be used as the name of an ingredient except when it has become a common name.

9.13(3) Percentages of ingredients. Percentages of ingredients shall be determined by weight and the sum of the percentages of the ingredients shall be one hundred. Sliding scale forms of ingredient statements shall not be used.

9.13(4) Designation of ingredients.

a. Active ingredients and inert ingredients shall be so designated, and the term "inert ingredient" shall appear in the same size type and be equally as prominent as the term "active ingredients".

b. If the name but not the percentage of each active ingredient is given, the names of the active and inert ingredients shall, respectively be shown in the descending order of the percentage of each present in each classification and the name of each ingredient shall be given equal prominence.

9.13(5) Active ingredient content. As long as a pesticide is subject to the Act the percentages of active ingredients declared in the ingredient statement shall be the percentages of such ingredients in the pesticide.

9.14(206) Net contents.

9.14(1) Each package of pesticide shall show the net weight or measure of content, either stenciled or printed on the package or container, or on a tag attached thereto. Indefinite statements of content such as "...oz. when packed" shall not be used. Statements of liquid measure, or of specific gravity or density of liquid preparations, or expression of composition in terms of pounds per gallon, shall be made on the basis of 68°F. (20°C.) except when other basis has been established through trade custom.

9.15(206) Coloration of highly toxic materials.

9.15(1) The white powder pesticides hereinafter named shall be colored or discolored in accordance with this rule. Provided, however, that any such white powder pesticide which is intended solely for use by a textile manufacturer or commercial laundry, cleaner, or dyer as a moth-proofing agent, which would not be suitable for such use if colored and which will not come into the hands of the public except when incorporated into a fabric, shall not be required to be so colored or discolored in accordance with this rule. The hues, values, and chromas specified are those contained in the Munsell Book of Color, Munsell Color Company, 10 East Franklin Street, Baltimore, Maryland.

a. The coloring agent must produce a uniformly-colored product not subject to change in color beyond the minimum requirements during ordinary conditions of marketing and storage and must not cause the product to become less effective or cause damage when used as directed or in accordance with commonly recognized safe practice.

b. Standard lead arsenate, basic lead arsenate, calcium arsenate, magnesium arsenate, zinc arsenate, zinc arsenite, and barium fluosilicate shall be colored any hue, except the yellow-reds and yellows, having a value of not more than eight or a chroma of not less than four, or shall be discolored to a neutral lightness value not over seven.

c. Sodium fluoride and sodium fluosilicate shall be colored blue or green having a value of not more than eight and a chroma of not less than four, or shall be discolored to a neutral lightness value not over seven.

d. Others. Other white powder pesticides may be required to be colored or discolored after investigation and public hearing.

e. The secretary may permit other hues to be used for any particular purpose if the prescribed hues are not feasible for such purposes, and if such action will not be injurious to the public.

f. The coloration requirements above shall apply to the materials named therein, and not to nonhighly toxic mixtures consisting of other ingredients with highly toxic materials.

9.16(206) Illegal acts.

9.16(1) All pesticides, whether registered or not, sold or offered for sale shall comply with the provisions of section 206.3(1) of the pesticide Act.

a. The secretary shall examine pesticides from time to time, and if it appears at any time that a pesticide fails to comply with any provision of the pesticide Act, notice may be given to the manufacturer or seller thereof and an opportunity to present his views either orally or in writing about the alleged violation. If it then appears that the provisions of this Act have been violated, a statement of the facts may be sent to the county attorney in the county in which the violation occurred for the purpose of instituting criminal proceedings.

b. Also, if a pesticide, its labeling and other materials do not comply with the Act at any time, the secretary may cancel the registration and issue a registration under protest and publicize the said protest.

9.17(206) Guarantee of pesticide.

9.17(1) Any manufacturer or distributor or other person residing in the United States may furnish to any person to whom it sells a pesticide a guarantee that the pesticide was lawfully registered at the time of sale and delivery to such person, and that the pesticide complies with all the requirements of the Act and rules herein.

9.17(2) No reference to or suggestion that a guarantee of registration has been given shall be made in the labeling of any pesticide.

9.18(206) Shipments for experimental use.

9.18(1) A pesticide shipped or delivered for experimental use shall not be considered a violation of section 206.3(1) of the pesticide Act.

a. When the pesticide is shipped or delivered for experimental use under the supervision of any federal or state agency authorized by law to conduct research.

b. By others if the pesticide is not sold and if the container thereof is plainly and conspicuously marked "For Experimental Use Only—Not To Be Sold".

c. Or provided that a written permit has been obtained from the secretary either specific or general subject to such restrictions or

conditions as may be set forth in the permit. The application for such a permit shall contain such information as may be required by the secretary; and in addition the proposed labeling thereon shall bear (1) the prominent statement "For Experimental Use Only" on the container label; (2) a caution or warning statement which may be necessary and if complied with adequate for the protection of those who may handle or be exposed to the experimental products; (3) the name and address of the applicant; (4) the name or designation of the formulation; (5) if the pesticide is to be sold, the statement of the names and percentages of the principal active ingredients in the product.

d. A pesticide intended for experimental use shall not be offered for general sale by a retailer or others, or advertised for general sale.

9.19(206) Enforcement.

9.19(1) Collection of samples. Samples of pesticides and devices shall be collected by an official investigator or by any employee of the state who has been duly designated by the secretary, by entry into any place during reasonable business hours.

9.19(2) Notice of apparent violation. If from an examination or analysis a pesticide appears to be in violation of the pesticide Act, a notice in writing shall be sent to the person against whom criminal proceedings are contemplated, giving him an opportunity to offer such written explanation as he may desire. The notice shall state the manner in which the sample fails to meet the requirements of the Act and the regulations.

9.19(3) Any person may in addition to his reply to such notice, file within twenty days of its receipt a written request for an opportunity to present his views orally in connection therewith.

9.19(4) No notice or hearing shall be required prior to the seizure of any pesticide or device. Any pesticide or device may be seized for confiscation by condemnation if it is being distributed, sold, or offered for sale in violation of law as provided in section 206.10 of the pesticide Act.

9.19(5) If an article is condemned, it shall after entry of court decree be disposed of by destruction or sale and the net proceeds, if any, shall be paid to the state treasurer.

9.20(206) Chemical deterioration of products.

9.20(1) The following pesticides are subject to deterioration because of lapse of time since manufacture:

a. Pyrethrum (dust and wettable powder)

b. Rotenone (dust and wettable powder)

c. Diazinon-starter fertilizer mixtures

d. Mixtures of zineb and malathion

e. DDVP (syrup baits)

9.20(2) The label on such pesticides shall bear the confidential code number or designa-

tion approved by the secretary which shows the date of manufacture.

9.21(206) Highly toxic.

9.21(1) A pesticide which falls within any of the following categories when tested on laboratory animals (mice, rats and rabbits) is highly toxic to man within the meaning of these principles:

a. Oral toxicity. Those which produce death within fourteen days in half or more than half the animals of any species at a dosage of fifty milligrams at a single dose, or less, per kilogram of body weight when administered orally to ten or more such animals of each species.

b. Toxicity on inhalation. Those which produce death within fourteen days in half or more than half of the animals of any species at a dosage of two hundred parts or less by volume of the gas or vapor per million parts by volume of air when administered by continuous inhalation for one hour or less to ten or more animals of each species, provided such concentration is likely to be encountered by man when the pesticide is used in any reasonable foreseeable manner.

c. Toxicity by skin absorption. Those which produce death within fourteen days in half or more than half of the animals (rabbits only) tested at a dosage of two hundred milligrams or less per kilogram of body weight when administered by continuous contact with the bare skin for twenty-four hours or less to ten or more animals.

d. Provided, however, that the secretary may exempt any pesticide which meets the above standard but which is not in fact highly toxic to man, from these principles with respect to pesticides highly toxic to man, and may after a hearing designate as highly toxic to man any pesticide which experience has shown to be so in fact.

e. If the secretary finds, after opportunity for hearing that available data on human experience with any pesticide indicates a toxicity greater than that indicated from the above described tests on animals, the human data shall take precedence and if he finds that protection of the public health so requires, the secretary shall declare such pesticide to be highly toxic to man for the purposes of this Act and the regulations thereunder.

9.22(206) Sale or possession of sodium fluoroacetate.

9.22(1) No person shall sell or possess any sodium fluoroacetate except federal, state, county, municipal officers or their deputies for use in their official duties in pest control; research or chemical laboratories in their respective fields; regularly licensed pest control operators for use in their own service work; and wholesalers or jobbers of pesticides for sale to the aforementioned persons; or for export.

9.23(206) Sale or possession of thallium.

9.23(1) No person shall sell or possess any thallium or thallium compound except

federal, state, county, municipal officers or their deputies for use in their official duties in pest control; research or chemical laboratories in their respective fields; regularly licensed pest control operators for use in their own service work; properly registered ant, mole, and rodent poisons containing thallium expressed as metallic not more than one percent; wholesalers or jobbers of pesticides for sale to the aforementioned persons; or for export.

9.24(206) Warning, caution and antidote statements.

9.24(1) In order to promote uniformity between the requirements of the Iowa pesticide Act and requirements of the several states and the federal government, section 206.6 of the Iowa pesticide Act provides for the adoption of rules and regulations in conformity with those prescribed by the United States department of agriculture. Warning, caution and antidote statements required to appear on labels of pesticides under the pesticide Act shall conform to the warning, caution and antidote statements required under interpretation 18 and revisions thereof of the regulations for the enforcement of the federal insecticide, fungicide, and rodenticide Act, which interpretation 18 and revisions thereof are hereby incorporated into this rule by this reference and made a part hereof.

9.25(206) Forms of plant and animal life and viruses declared to be pests.

9.25(1) Each of the following forms of plant and animal life and viruses is declared to be a pest under the Act when it exists under circumstances that make it injurious to plants, man, domestic animals, other useful vertebrates, useful invertebrates, or other articles or substances:

a. Mammals, including but not limited to dogs, cats, moles, bats, wild carnivores, armadillos, and deer;

b. Birds, including but not limited to starlings, English sparrows, crows, and black-birds;

c. Fishes, including but not limited to the jawless fishes such as the sea lamprey, the cartilaginous fishes such as the sharks, and bony fishes such as the carp;

d. Amphibians and reptiles, including but not limited to poisonous snakes;

e. Aquatic and terrestrial invertebrates, including but not limited to slugs, snails, and crayfish;

f. Roots and other plant parts growing where not wanted;

g. Viruses, other than those on or in living man or other animals.

9.26(206) Regulations dealing with commercial applicators.

9.26(1) All licensed commercial applicators shall establish and maintain a program of continued training of personnel who apply or disperse pesticides.

9.26(2) The secretary shall administer a testing program designed to test an applicator's knowledge of the usage, the rates of application and precautions to be taken in use of any or all products which he will be applying.

9.26(3) All commercial applicators of pesticides shall be required to have a license. The secretary shall require proof of competence and responsibility before issuing a license, and for this purpose may require the commercial applicator and his or its foremen who supervise the application of any pesticide in this state, to pass a written examination before issuing the license.

9.26(4) Every public official or foreman, who applies pesticides on public property or supervises such application shall be licensed and shall pass a written examination and be required to qualify as competent, before being issued his license.

9.26(5) Employees of state or federal research organizations (USDA Plant Pest Control Division, Iowa Agricultural Experiment Station and other official agencies authorized by law to conduct research in the field of pesticides) are not required to take the written examination or to be issued a license.

9.26(6) Every licensee shall make records of his activities which shall include on each pesticide applied:

- a. The name of the licensee
- b. The name and address of the landowner or customer
- c. An adequate and precise description of the land area involved in treatment outdoors, and the exact address or location of any building or buildings treated, wherever located
- d. The date of application
- e. The pesticide product used
- f. The quantity used and rate of application
- g. The direction and estimated velocity of wind at time of application to any outdoor area.

9.26(7) A copy of such records shall in every case be kept in the applicator's file for a period of five years from date of application. If any claim or suit is brought within such period of time, said records shall be kept on file available for subpoena until final disposition of the claim or suit. Any such records shall be made available to the secretary or his representative upon request at any time.

9.26(8) Any person seeking to obtain a commercial applicator's license in this state shall submit proof of financial responsibility to the secretary, and upon obtaining a license such person shall maintain proof of financial responsibility at all times while such license shall be in effect. Proof of financial responsibility may consist of:

- a. Proof of unencumbered financial net worth of the applicant or licensee if a resident

of this state, in an amount not less than five thousand dollars; exclusive of his homestead, or

b. The deposit with the secretary of a surety bond in favor of any person or persons who may suffer damage from the application of a pesticide, issued by a corporate surety company authorized to do business in this state, which surety bond shall be in an amount not less than five thousand dollars, however, that the aggregate liability of the surety to all such persons shall, in no event, exceed the amount of such bond; or

c. The filing of an insurance policy of an insurer authorized to do business in this state, insuring the licensee and any of his agents against liability resulting from the application of a pesticide, which insurance policy shall be in an amount not less than five thousand dollars against damage to persons or property.

d. Regardless of the method of proof which may be used by the applicant under this rule, the form and substance of said proof must meet with approval of the secretary of agriculture.

9.26(9) The secretary may revoke or suspend any license of a commercial applicator after conviction of the holder for violation of any provision of the pesticide Act.

9.26(10) If upon an investigation of the commercial applicator it appears at any time that said applicator has failed to comply with or has violated any provision of the pesticide Act or has failed to pay any final judgment rendered against him for damages within sixty days, or has failed or refused to follow safe and recommended procedures for the application of any pesticide, a written notice shall be given to said applicator and an opportunity to present his views orally or in writing about the alleged acts or violation, and after said notice and an opportunity to appear, the secretary may refuse to renew the applicator's license.

9.26(11) Custom fertilizer manufacturers who add a pesticide to their custom blends shall register a label for each guaranteed level of each pesticide added to fertilizer mixtures. The applicator who drives a spreader truck applying fertilizer pesticide mixtures shall be required to have an applicator's license, unless he is under the supervision of a licensee.

9.27(206) Use of high volatile esters.

9.27(1) The use of high volatile esters formulations of 2,4-D and 2,4,5-T, the alcohol fraction of which contains five or fewer carbons, shall be prohibited in the counties of Harrison, Mills, Lee, Muscatine and that part of Pottawattamie county west of Range 41 West of the 5th P.M. to become effective upon filing.

[Filed December 2, 1963; amended
May 15, 1964]

CHAPTER 9A
FERTILIZERS

9A.1(200) Additional plant food elements besides N, P, and K. Additional plant nutrients, besides nitrogen, phosphorus and potassium, when mentioned in any form or manner shall be registered and shall be guaranteed. Guarantees shall be made on the elemental basis. Sources of the elements guaranteed shall be shown on the application for registration. The minimum percentages which will be accepted for registration are as follows:

<i>Element</i>	<i>Percent</i>
Calcium (Ca)	1.00
Magnesium (Mg)	0.50
Sulfur (S)	1.00
Boron (B)	0.02
Chlorine (Cl)	0.10
Cobalt (Co)	0.0005
Copper (Cu)	0.05
Iron (Fe)	0.10
Manganese (Mn)	0.05
Molybdenum (Mo)	0.0005
Sodium (Na)	0.10
Zinc (Zn)	0.05

Guarantees or claims for the above-listed additional plant nutrients are the only ones which will be accepted. Proposed labels and directions for use of the fertilizer shall be furnished with the application for registration upon request. Any of the above-listed elements which are guaranteed shall appear in the order listed, immediately following guarantees for the primary nutrients, nitrogen, phosphorus and potassium. Warning or caution statements are required on the label for any product which contains 0.03 percent or more of boron in a water-soluble form or 0.001 percent or more of molybdenum.

9A.2(200) Warning required. When any product which contains 0.03 percent or more of boron in a water-soluble form or 0.001 percent or more of molybdenum is incorporated in a commercial fertilizer a special warning tag or statement must be furnished to the purchaser. This tag or statement shall carry the word "WARNING" in letters at least one inch in height; it shall state the crops for which the fertilizer is to be used and it shall state that use of the fertilizer on any other than those recommended may result in serious injury to the crops. The tag or statement is to be attached to or printed on the bag or other container in which the fertilizer is sold; for bulk fertilizers the statement must be placed on the invoice or other document which shall accompany delivery and be supplied to the purchaser at the time of delivery as provided in section 200.6(2) of the Code.

9A.3(200) Specialty fertilizer labels. Specialty fertilizer products shall be labeled to show the following information, if not appearing on the face or display side in a readable and conspicuous form, shall occupy at least the upper third of a side of the container.

Net Weight
Brand Name
Grade
Guaranteed Analysis:
Total Nitrogen (N)%
_____ % Ammoniacal Nitrogen**
_____ % Nitrate Nitrogen**
_____ % Water Insoluble Nitrogen*
Available Phosphorus (P) or P₂O₅ or both%
Soluble Potassium (K) or K₂O or both
.....%

Additional Plant Nutrients, if claimed, and in the order and not less than the minimum percentage as shown in rule 9A.1 of this chapter.

**Potential Acidity or Basicity _____ % or _____ lbs.

Calcium Carbonate Equivalent per ton.
Name and Address of Registrant

Notes:

*If claimed or the statement "organic" or "slow acting nitrogen" is used on the label.

**If claimed or required.

9A.4(200) Pesticides in fertilizers. When an insecticide, herbicide, or any other additive for pest control is added to fertilizer the product must be registered and guaranteed with respect to the kind and percentage of each of these additives as well as with respect to plant food elements. In a prominent manner the label on the package shall state the crops for which the fertilizer is to be used and shall state that the use of the fertilizer on any other crops or under conditions other than those recommended may result in serious injury to crops.

9A.5(200) Prior to cancellation of registration and license. At any time the following conditions prevail the secretary will notify the person guaranteeing the fertilizer that the quality of such fertilizers must be improved and may request that the distributor notify the secretary of further sales to be made in the state prior to manufacturing, mixing or blending.

9A.5(1) When more than twenty percent of five or more samples of all fertilizers sampled from a plant are in violation.

9A.5(2) When more than twenty percent of five or more samples of one grade from a plant are in violation.

If further sampling and analysis of fertilizer covered by "1" or "2" above shipped after the first official notice does not indicate performance above these standards the guarantor's license may be suspended or sale may be stopped on all such lots of a specific fertilizer grade.

9A.6(200) Standards for the storage and handling of anhydrous ammonia. The Standards for the Storage and Handling of Anhydrous Ammonia as published in the A.A.I. Standard No. M-1 January, 1965, revision shall

be adopted as the official standards for administration of the Iowa Fertilizer Law with the following exceptions.

1. Section 1.2.1(K) entitled "Implement of husbandry" is deleted.

2. Section 2.4 is deleted and in its place insert the following:

2.4 Location of containers and permanently installed unloading points. Containers shall be located outside of buildings other than those especially constructed for this purpose. Permanent storage and permanently installed unloading points shall be located outside of densely populated areas, and subject to the approval of the Iowa department of agriculture, which can determine whether the storage and unloading points are located a safe distance from the line of property which may be built on. However, in the absence of a specific determination, this distance shall not be less than fifty feet. In any case, the distance from a source of drinking water shall not be less than fifty feet, and the distance from any school, hospital, or any other place of public assembly shall not be less than four hundred feet.

3. Section 2.11.4 is deleted and in its place insert the following:

2.11.4 Tank cars shall be unloaded only through a permanently installed unloading point which meets all requirements of these regulations including location, design, construction, safety equipment and operation.

4. Section 5.10 Transfer of Liquids, add new subsection 5.10.3.

5.10.3 Tank trucks, semitrailers and trailers for transportation of anhydrous ammonia above three thousand gallons total water capacity shall be unloaded only through a permanently installed unloading point which meets all requirements of these regulations including location, design, construction, safety equipment and operation.

These rules are intended to implement chapter 200 of the Code.

[Filed July 13, 1965; amended November 14, 1966]

CHAPTER 10

BULK TANKS FOR MILK

10.1(192) The milk room may be built inside of a barn or other building if completely enclosed, properly ventilated and kept in a sanitary condition. A vestibule is not required.

10.2(192) The milk room shall have a floor drain with a trap, and the floor shall be so graded as to provide proper drainage. A drain opening through the wall will not be permitted.

10.3(192) The walls and ceilings of the milk room shall be sealed and of material that can be easily cleaned.

10.4(192) All windows that open or can be opened shall be screened against flies or other insects.

10.5(192) Doors shall be self-closing, made of solid material, and open outward. Doors swinging both ways will not be approved, but may have sliding doors, if self-closing. The outside door may be a screen door opening outward.

10.6(192) A well-ventilated room shall mean a room in which the air is changing or moving so as to keep it free from moisture, bad odors, excessive heat and dust.

10.7(192) The bulk tank shall be located in such a manner that the drain is accessible for cleaning and rodding.

10.8(192) The hose port shall be located on the exterior wall of the milk room in such a manner that the hose can be kept clean and sanitary at all times.

10.9(192) The usual safety regulations for a 220-volt weather proof electrical connection for a milk pump shall be followed. The switch box shall be placed on the inside wall of the milk room.

10.10(192) A properly located tank shall mean one with easy access to all areas for cleaning and servicing. There must be space for a person to move around on all sides of the tank for proper cleaning.

[Filed November 18, 1963]

CHAPTER 11

COMMERCIAL FEEDS

11.1(198) The definitions and standards for commercial feeds adopted by the Association of American Feed Control Officials are hereby adopted for the enforcement of the Iowa commercial feed law.

11.2(198) Brand and product names.

11.2(1) The brand or product name must not be misleading. If the name indicates the feed is made for a specific use the character of the feed must conform therewith.

11.2(2) Single ingredient feeds shall have a product name in accordance with the designated definitions of feed ingredients as recognized by the Association of American Feed Control Officials.

11.2(3) A name of a commercial feed, other than those containing hormones, shall not be derived from one or more ingredients of a mixture to the exclusion of other ingredients and shall not be one representing any component of a mixture unless all components are included in the name.

11.2(4) The word vitamin, or a contraction thereof, or any word suggesting vitamin can be used only in the name of a feed which is represented to be a vitamin supplement, and which is labeled with the minimum content of each vitamin declared, as specified in 11.3(3).

11.2(5) The term "mineralized" shall not be used in the name of feed except "Trace Min-

eralized Salt". When so used, the product must contain significant amounts of trace minerals which are recognized as essential for animal nutrition.

11.3(198) Expression of guarantees.

11.3(1) The sliding-scale method of expressing guarantees (For example: "Protein 15-18%") is prohibited, except on minerals where a specific maximum and minimum guarantee is required.

11.3(2) *Drugs* in commercial feeds shall be guaranteed in terms of percentage by weight, except that antibiotics if guaranteed must be guaranteed in terms of grams per pound of feed when more than one gram per pound is present; and in terms of grams per ton when lesser amounts are presented.

11.3(3) *Vitamins*, guarantees of minimum vitamin content of feeds and feed supplements shall be stated in units or milligrams per pound as provided herein: Vitamin E in International Units or as the vitamin part of vitamin E active compounds in milligrams per pound, vitamin A, other than precursors of vitamin A, in USP Units, vitamin D in products offered for poultry feeding in International Chick Units, vitamin D for other uses in USP Units, all other vitamins as true vitamins, not compounds, excepting only pyridoxine hydrochloride, choline chloride, and thiamine; oils and concentrates containing vitamin A or vitamin D or both may be additionally labeled to show vitamin content in units per gram; and providing that the term "d-pantothenic acid" be used in stating the pantothenic acid guarantee.

11.3(4) *Minerals*, except salt (NaCl), when quantitatively guaranteed, shall be stated in terms of percentage of the element. If any minerals are guaranteed, all required (CA, P, I, Salt, if added) shall be shown on the label. When calcium or salt guarantees are given in the guaranteed analysis, such shall be stated as minimum and maximum and conform to the following:

a. When the minimum is 5.0 percent or less, the maximum shall not exceed the minimum by more than one percent.

b. When the minimum is above 5.0 percent, the maximum shall not exceed the minimum by more than twenty percent provided that in no case shall the difference between the minimum and maximum exceed 5.0 percent.

11.4(198) Ingredient statement.

11.4(1) Each feed ingredient must be specifically named.

11.4(2) When water is added in the preparation of canned foods for animals, water must be listed as an ingredient.

11.4(3) The term "dehydrated" may precede the name of any product that has been artificially dried.

11.4(4) No reference to quality or grade of an ingredient shall appear in the ingredient statement of a feed.

11.4(5) Pursuant to section 198.5 of the Code alternative listing of any ingredients given within each of the following groups may be shown on the registration:

a. Corn, hominy feed, wheat, barley and grain sorghums.

b. Cottonseed meal, soybean meal, peanut meal and linseed meal.

c. Beet molasses, corn sugar molasses, citrus molasses and cane molasses.

11.5(198) Labeling.

11.5(1) The information required in section 198.6 of the Code must appear in its entirety on one side of a label or on one side of the container; except for feeding instructions which may be placed on the reverse side of the label if necessary. This information shall not be subordinated or obscured by other statements and designs.

11.5(2) The names of all ingredients must be shown in letters or type of the same size.

11.6(198) Minerals.

11.6(1) When the word "iodized" is used in connection with a feed ingredient, the ingredient shall not contain less than 0.007 percent iodine, uniformly distributed.

11.6(2) Mineral phosphatic materials for feeding purposes shall be labeled with a guarantee for the minimum and maximum percentages of calcium, minimum percentage of phosphorous, and the maximum percentage of fluorine.

11.6(3) The fluorine content of any mineral or mineral mixture which is to be used directly for the feeding of domestic animals shall not exceed 0.30 percent for cattle; 0.35 percent for sheep; 0.45 percent for swine; and 0.60 percent for poultry.

Soft rock phosphate, rock phosphate, or other fluorine-bearing ingredients may be used only in such amounts that they will not raise the fluorine concentration of the total (grain) ration above the following amounts: 0.009 percent for cattle; 0.01 percent for sheep; 0.014 percent for swine; and 0.35 percent for poultry.

11.7(198) *Nonprotein nitrogen*. Urea and ammonium salts of phosphoric and carbonic acids are acceptable ingredients in cattle, sheep and goat feeds only; these materials shall be considered adulterants in proprietary feeds for other animals and birds; the maximum percentage of equivalent protein from nonprotein nitrogen must appear immediately below crude protein guarantee; and the name of the substance supplying the nonprotein nitrogen must appear in the ingredient list. If feed contains more than 8.75 percent of equivalent protein contributed by nonprotein material or if the equivalent protein contributed by nonprotein materials exceeds one-

third of the total crude protein, the label shall bear (1) a statement of proper usage and (2) the following statement in type of such conspicuousness as to render it likely to be read and understood by ordinary individuals under customary conditions of purchase and use:

WARNING: This feed should be used only in accordance with directions furnished on the label.

11.8(198) Artificial color. An artificial color may be used in feeds only if it has been shown to be harmless to animals. No material shall be used to enhance the natural color of a feed or feed ingredient whereby inferiority would be concealed.

11.9(198) Drugs, stock tonics.

11.9(1) Before a registration is accepted for a commercial feed or stock tonic which contains drugs or other ingredients which are potentially harmful to animals, the distributor may be required:

a. To submit evidence to show the safety of the feed when used according to the directions which the distributor furnishes with the feed: (A current food and drug administration clearance will be accepted as evidence of safety).

b. To furnish a written statement that adequate written or printed warnings and feeding directions will accompany each delivery of the feed; and

c. To state the percentage of the drug, or other ingredients in a prominent place on the label of the feed.

11.10(198) Stock tonics. For efficient administration under section 198.3(7) of the Code, stock tonics shall include all remedies or drugs for adding to the drinking water. Products for animal feeding containing more than twenty percent of drugs or remedies for the cure, mitigation, prevention or treatment of diseases or other nonnutritional conditions shall be registered as stock tonics even though the product may be carried on feed ingredients or be intended for mixing with feed. Products containing less than twenty percent of drugs or remedies and represented as remedies for nonnutritional conditions may be registered as stock tonics.

11.11(198) Viable weed seed. Screening and by-products of grains or seeds containing viable weed seed shall not be used as an ingredient in the manufacture of commercial feed, unless the feed is so finely ground or otherwise treated so that the weed seed will not germinate.

[Filed March 11, 1964]

CHAPTER 12
STATE ENTOMOLOGIST

12.1(267) Nursery stock. Defined as cultivated or wild woody plants such as all kinds

of fruit trees and vines, forest or shade trees, evergreens, ornamental shrubs and vines; all kinds of berry plants including strawberry plants, flowering bulbs and corms; roots or rooted herbaceous plants to be used for ornamental purposes; fruit pits, nuts and other seeds or fruit, forest and ornamental trees and shrubs; and such other plants and parts thereof which are to be offered for sale in other states where Iowa inspection and certificate coverage of such plants or parts is required as a condition of entrance therein.

12.2(267) Person. Defined as any individual, or combination of individuals, corporation, company, society, association, or partnership, institution or public agency.

12.3(267) A nurseryman. A person who grows or propagates nursery stock for sale or distribution.

12.4(267) A nursery. Any grounds or premises on or in which nursery stock is propagated or grown for sale or distribution, including any grounds or premises on or in which nursery stock is being fumigated, treated, stored or packed for sale or movement.

12.5(267) A dealer. Any person, not a grower or propagator of nursery stock, who obtains nursery stock for the purpose of sale or distribution, said nursery stock usually being kept on hand so delivery or partial delivery may be made at the time of sale.

12.6(267) An agent, or salesman. A person who has authority to represent a nurseryman, dealer, or another agent in soliciting wholesale or retail orders for nursery stock, but who keeps no nursery stock on hand for advertising or display purposes or for delivery at the time an order is taken.

12.7(267) No nursery stock shall be brought into the state or transported or offered for sale or transportation within the state unless such shall have first been inspected and found free of any seriously injurious insect pest or plant disease.

12.8(267) Every shipment, car, package, bag, box, carton or parcel of nursery stock brought into the state or transported or offered for sale or transportation in the state must carry firmly attached thereto a tag bearing a copy of the shipper's current valid certificate of inspection certifying that the stock has been inspected by a duly authorized inspector and found free of seriously injurious insect pests and plant disease. If for any reason the shipment requires a federal inspection certificate or tag, the same must be attached.

12.9(267) Every out-of-state nurseryman or dealer who ships nursery stock into the state of Iowa must file with the state entomologist of Iowa a signed copy of his current valid certificate of inspection. This, together with

the payment of either a fee of ten dollars or a fee equivalent to that charged by his state to out-of-state nurserymen and dealers, shall entitle him to an out-of-state certificate as shown herewith. The state entomologist of Iowa shall determine which fee shall be paid.

State of Iowa
Department of Agriculture
Office of the State Entomologist
Number ... Station "A", Ames, Iowa ..., 19..
Out-of-State Certificate

This certifies that
of (name) has filed a certificate of inspection with the State Entomologist of Iowa, stating that (address) nursery stock has been duly inspected for the season of 19...., and found to be apparently free from dangerously injurious insect pests and plant diseases.

Permission is hereby granted to the above named nursery to ship nursery stock into the State of Iowa for the year ending September 1, 19...., provided that all rules and regulations of any federal quarantine, as well as those of the State of Iowa, governing the movement of such stock into Iowa, be complied with.

This certificate expires September 1, 19...., but may be revoked for cause.

.....
(Secretary of Agriculture)
.....
(State Entomologist)

12.10(267) Notwithstanding the provision of rule 12.9(267), the state entomologist may enter into reciprocal agreements with the responsible officers of other states whereby the required out-of-state certificate may be granted to nurserymen and dealers of such states without the payment of the required fee provided Iowa nurserymen are permitted to ship nursery stock into such states without having to pay a fee for a certificate granting that privilege; and provided, further, the state entomologist shall find that other states before issuing their certificates require inspections equal to those required by the Iowa law.

12.11(267) The state entomologist may also enter into reciprocal agreements with the responsible officers of other states under which certified nursery stock may be sold and shipped into the state by nurserymen and dealers of such states without furnishing bond, special permit tags of all kinds, filing of special invoices, fumigation of stock, special inspection at time of shipment or any other special inspection other than that required for the issuance of the regular form of certificate of inspection, signing of special statements concerning the location of nursery stock or any requirements other than the filing of the certificate of inspection.

12.12(267) All shipments of nursery stock coming into the state as well as intrastate

shipments are subject to inspection in transit or at destination at the option of the inspector, and if found infested with any dangerously injurious insect pest or plant disease, may be returned to the consignor, treated, destroyed, or otherwise disposed of as the inspector may deem advisable and direct. In case return to the consignor or treatment is ordered same shall be at the expense of the consignor.

12.13(267) The inspection of nurseries shall be made annually or oftener if the nature of the stock is such as to require inspection more frequently or if certain clean-up measures are recommended and further inspection is needed as a consequence.

12.14(267) If deemed advisable by the state entomologist, any nurseryman or dealer must give references satisfactory to the state entomologist as to his integrity and moral character before a certificate shall be issued to him.

12.15(267) Nursery stock lined out or heeled in and held over after the spring delivery season for nursery stock is over shall not be offered for sale or transportation without reinspection and certification. The usual inspection fee shall be paid for such inspection and certification.

12.16(267) Nursery stock purchased in other states and shipped into this state, as well as stock purchased within the state, received under a recognized certificate may be reshipped by Iowa nurserymen or dealers under their own certificate.

12.17(267) Iowa nurserymen and dealers may, if deemed advisable by the state entomologist, be required to furnish a complete list of names of firms or individuals, together with their addresses, from whom they receive nursery stock.

12.18(267) Growers of greenhouse plants, hardy herbaceous perennials, bulbs or tubers of flowering plants, or other plants, who wish to make shipments into states requiring that an inspection certificate accompany such plants must make application for inspection services before such certificate can be issued. The same rules and fees shall apply here as for inspection of nursery stock.

12.19(267) Each applicant for inspection, if the stock is found satisfactory, shall upon the payment of the required fee be granted a certificate of the form shown below. All certificates are valid up to the first of September following date of issue, the certificate year dating from September 1 to September 1, even though the inspections often must be made during the summer months preceding the date of issuance of the certificate.

State of Iowa
Department of Agriculture
Office of the State Entomologist
Number ... Station "A", Ames, Iowa ..., 19..
Certificate of Nursery Inspection

This certifies that the nursery premises and the growing nursery stock consisting of

 (general nursery stock—evergreens, strawberries, raspberries)

 (ornamental shrubs, etc.)
 and belonging to
 have been inspected by a duly authorized nursery inspector as provided by the "Iowa Crop Pest Act"—Chaper 267 of the Code.

Permission is hereby granted to the above-named nursery to sell and ship (1) stock of his own growing which upon inspection has either been found apparently free from dangerously injurious insect pests and plant diseases, or if infested or diseased, has been treated as prescribed by this office, and (2) stock obtained from other sources approved by this office, provided that a tag on which a copy of this certificate has been printed, is attached to each package, bale, box or carload lot shipped or delivered.

This certificate applies only to stock which has been officially inspected for the year ending September 1, 19... and expires on that date, but may be revoked by the State Entomologist at any time for cause.

.....
 Secretary of Agriculture

 State Entomologist

12.20(267) Dealers in nursery stock shall secure a dealer's certificate from the state entomologist under which to carry on their business within the state. For the purposes of this regulation each separate place of business whether owned or operated by an individual, firm or corporation shall be considered as distinct and operate under its own certificate. In case of a system of chain stores or chain nurseries each store or nursery shall obtain a dealer's certificate from the state entomologist for the conduct of the nursery business in such store or nursery. The fee for each dealer's certificate shall be five dollars.

12.21(267) Each applicant for a dealer's certificate shall be required to subscribe to the following affirmation:

Nursery Dealer's Affidavit

State of Iowa
 County of ss.

I,
 of
 State of Iowa, dealer in nursery stock being duly sworn, declare that I grow no nursery stock for sale myself at
 and that I will buy and sell only stock which has been inspected and certified by a duly authorized nursery inspector in the state where the stock is grown. I have purchased or expect to purchase only nursery stock which has been inspected for the year ending September 1, 19... from

.....
 I further agree that, if during the said year, I obtain nursery stock from any parties other

than those named above, I will give written notice of such purchase to the State Entomologist of Iowa, and will not sell or otherwise dispose of such stock without his written consent to do so.

I affirm that as a nursery dealer I have and will maintain proper facilities for keeping all nursery stock to be offered for sale in a viable condition pending such sale.

Subscribed and sworn to before me by the said this... day of....., 19.....

Notary Public in and for County of

12.22(267) The certificates granted dealers shall be of the form shown below and shall be valid from the date of issue to the following September 1.

STATE OF IOWA
 DEPARTMENT OF AGRICULTURE
 OFFICE OF THE STATE ENTOMOLOGIST
 Number Ames, Iowa, 19...

Dealer's Certificate

This certifies that
 (name)
 of having made affidavit

(address)
 to buy and sell only nursery stock which has been inspected and certified in accordance with the provisions of "The Iowa Crop Pest Act", chapter 267 of the Code, and to file with the state entomologist a complete list of all sources from which he desires to procure stock for reselling, is authorized to sell and ship nursery stock as a dealer; provided that a tag on which a copy of this certificate has been printed is attached to each package, box or other container in which shipment is made.

This certificate expires September 1, 19...., but may be revoked sooner for cause.

.....
 Secretary of Agriculture

 State Entomologist

12.23(267) If deemed advisable by the state entomologist, each applicant for a dealer's certificate shall furnish a written recommendation of one banker, one businessman and three nurserymen and must satisfy the state entomologist as to his business honesty and integrity.

12.24(267) Individuals, firms or corporations who are offering nursery stock for sale at nursery grounds, stores, roadside stands, public market places, or any other place, shall have and maintain proper facilities for keeping all nursery stock in a viable condition and shall keep such stock in a viable condition pending sale, and shall keep in view of the public the proper kind of certificate showing that they have the right to be offering nursery stock for sale.

12.25(267) Nursery stock being offered for sale shall be watered so that the roots are sufficiently moist at all times. Nursery stock dug with a ball of earth around the roots shall be kept in sawdust, shingletoe, peat, sphagnum

moss or other moisture-holding material, not toxic to the plants, of sufficient depth to cover at least two-thirds of the ball of earth. Dormant nursery stock dug without a ball of earth around the roots may be displayed with the roots covered with soil or any of the above moisture-holding material or may be stored in a storage room where the temperature and humidity are controlled to maintain the viability of the nursery stock. When the state entomologist or his authorized representative finds nursery stock being offered for sale under conditions which do not meet the requirements of this rule he may order that sale of the nursery material be stopped until the requirements are complied with.

12.26(267) Each plant collected from the wild state and offered for sale must bear a label plainly marked "Collected from Wild", unless such plant material is grown in the nursery row for at least one growing season before being offered for sale, then such disclosure is not required.

12.27(267) Railroad and express companies, postal systems, bus lines and any other public carriers of any kind whatsoever are prohibited from accepting, for shipment, nursery stock not bearing a proper certificate of inspection. If the shipper, when notified that the certificate is lacking, does not supply same, the said companies or officials shall report said fact to the state entomologist of Iowa, giving name and address of the party offering said stock for shipment.

See sections 267.13 and 267.14 of Iowa crop pest Act.

12.28(267) Out-of-state nurserymen or dealers who have their orders filled by Iowa nurserymen and shipped directly to their customers and want the stock to go out as their shipment will be required to take out a dealer's license with their address as that of nursery where orders are filled and have attached to each shipment a tag bearing a copy of the certificate. Otherwise the shipment must have attached to it the grower's certificate of the nursery filling the order and the stock represented as belonging to them.

12.29(267) Any nurseryman or dealer advertising nursery stock for sale in Iowa should give in his advertisement the number of the certificate under which he is operating in the state of Iowa.

12.30(267) Quarantine regulations, either state or federal, will take precedence over the above rules in regard to any nursery plant or class of plants affected by them.

12.31(267) Certificates issued to nurserymen or dealers are nontransferable and are for the exclusive use of the one to whom they are issued. Each and every form of these may be revoked by the state entomologist at any time.

12.32(267) Cereal leaf beetle (*Oulema melanopa*).

12.32(1) The insect cereal leaf beetle (*Oulema melanopa*) in any living state of its development is hereby declared a dangerously injurious insect pest. A certification of inspection as to freedom from cereal leaf beetle (*Oulema melanopa*) is hereafter required on all of the following listed commodities coming into Iowa, from or through any area of the United States, which is under cereal leaf beetle (*Oulema melanopa*) quarantine.

a. Barley, oats, wheat and all other small grains which have not been cleaned to meet state seed sales requirements.

b. All hay and straw for use as forage or bedding.

c. Fodder and plant litter of any kind.

d. Sod.

e. Used harvesting machinery.

12.32(2) A certificate of inspection as to freedom from cereal leaf beetle (*Oulema melanopa*) must be executed by the state entomologist or other plant regulatory official of the quarantined state from which the commodity originates or passes through.

12.32(3) Any person bringing any of said commodities into Iowa for fairs, rodeos, or any other public or private exhibition or sale, shall furnish said certificate, at the time of arrival at his destination in Iowa to the fair board or other public or private official in charge of said exhibition or sale.

12.32(4) Said required certificate shall be in addition to any other health certificate required by Iowa law, rule, or regulation and in addition to any certificate required by any federal law, rule or regulation.

12.32(5) It shall be the duty of all said public or private officials in charge of said exhibition or sale, who receive such a certificate to promptly file the same with the Iowa State Entomologist at the Department of Agriculture, Des Moines, Iowa.

These rules are intended to implement chapter 267 of the Code.
[Filed October 19, 1961; amended March 20, 1968]

CHAPTER 13 STATE APIARIST

[Rules of the state apiarist are in the process of revision. Contact the Secretary of Agriculture.]

CHAPTER 14 WEIGHTS AND MEASURES

All tolerances and specifications for the weights and measures division were adopted from the U. S. Bureau of Standards Handbook H.44 published September 1949.

14.1(215) The term "sensibility reciprocal" is defined as to the weight required to move the position of equilibrium of the beam, pan, pointer, or other indicating device of a scale, a definite amount.

14.2(215) A Platform Scale is a scale having a load receiving platform carried on multiply-

ing levers which transmit the load to the beam or other reading element, such platform having four or more lines of support comprised of bearings which rest directly upon knife edges in the multiplying levers. The tolerances to be allowed in excess or deficiency on all platform scales shall not be greater than the values shown in the following table:

MAINTENANCE TOLERANCES FOR LARGE-CAPACITY SCALES, EXCEPT LIVESTOCK, COAL-MINE, VEHICLE, AND FREIGHT SCALES, WHEEL-LOAD WEIGHERS, AND RAILWAY TRACK SCALES.

Known Test Load Pounds	Tolerance on Ratio Test Ounces	Tolerance on Weighbeam Reading-face and Unit-Weight Indications Ounces	
		Ratio Test Ounces	Unit-Weight Indications Ounces
99 or less	1/2	1	1
100 to 199, incl.	2	2	2
200 to 299, incl.	3	4	4
300 to 399, incl.	4	6	6
400 to 499, incl.	5	8	8
500 to 599, incl.	7	10	10
600 to 799, incl.	8	12	12
		Pounds	
800 to 999, incl.	11	1	1
1000 and over	3/4 lb. per 1000 lbs.	1 lb. per 1000 lbs.	1 lb. per 1000 lbs.

14.3(215) T.3.3. For vehicle, axle-load, livestock, animal, crane, and railway track scales. The basic maintenance tolerance on vehicle, axle-load, livestock, animal, crane, and railway track scales shall be two pounds per 1,000 pounds of test load (0.2 percent); the acceptance tolerance shall be one-half the basic maintenance tolerance.

14.4(215) Reserved for future use.

14.5(215) A counter scale is a scale of any type which is especially adopted on account of its compactness, light weight, moderate capacity, and arrangements of parts for use upon a counter or table. The tolerance on all counter scales shall be as follows:

Nominal capacity Pounds	Minimum tolerance value Ounce
3 or less	1/16
4 to 7, incl.	1/8
8 to 14, incl.	1/4
15 to 23, incl.	3/8
24 to 39, incl.	1/2
40 to 50, incl.	5/8

14.6(215) A spring scale is a scale in which the weight indications depend upon the change of shape or dimensions of an elastic body or system of such bodies.

14.6(1) A computing scale is a scale which, in addition to indicating the weight, indicates the total price of the amount of commodity weighed for a series of unit prices and must be correct in both its weight and value indications.

14.6(2) All computing scales shall be equipped with weight indicators and charts on both the dealer's and customer's sides.

14.6(3) Tolerances for both the spring scale and the computing scale shall not be greater than that for counter scales.

14.7(215) The automatic grain scale is one so constructed with a mechanical device that a stream of grain flowing into its hopper can be checked at any given weight, long enough to register said weight and dump the load. The garner above the scale should have at least three times the capacity of the scale to insure a steady flow at all times.

14.7(1) On automatic-indicating scales. On a particular scale, the maintenance tolerances applied shall be not smaller than one-fourth the value of the minimum reading-face graduation; the acceptance tolerances applied shall be not smaller than one-eighth the value of the minimum reading-face graduation.

However, on a prepackaging scale (see D.11, D.12) having graduated intervals of less than one-half ounce, the maintenance tolerances applied shall not be smaller than one-eighth ounce and the acceptance tolerances applied shall be not smaller than one-sixteenth ounce.

14.8(215) Motor truck scales are scales built by the manufacturer for the use of weighing commodities transported by motor truck.

14.9(215) Livestock scales are scales which are constructed with stock racks, or scales which are being used to weigh livestock.

14.10(215) Grain dump scales are scales so constructed that the truck may be unloaded without being moved from the scale platform.

The above-mentioned scales must be approved by the department. This approval being based upon blueprints and specifications submitted for this purpose.

14.11(215)

14.11(1) In the construction of a scale pit, the pit walls must be of reinforced concrete. The floor shall be constructed of materials that can be kept well drained and as dry as possible at all times. All scale footings shall be at least twelve inches below the frost line.

There shall be an approach at each end of the scale of not less than ten feet, and said approach shall be of reinforced concrete on a level with the scale deck.

14.11(2) Electronic scales shall have a vertical clearance of not less than four feet from the floor line to the bottom of the I beam of the scale bridge, thus providing adequate access for inspection and maintenance. The load-bearing supports of all scales installed in a fixed location shall be constructed to insure the strength, rigidity, and permanence required for proper scale performance.

14.12(215) Pitless scales may be installed on a temporary basis, not to exceed four

months, and said scale shall be placed on concrete footings. Said specifications for same being furnished by the scale manufacturer.

14.13(215) Master scale test weights used by scale repairmen for checking scales after being overhauled must be sealed by the department of agriculture, division of weights and measures, as to their accuracy once each year. Said weights after being sealed are to be used only as master test weights.

14.14(215) S.1 Design.

General. A scale shall be of such materials and construction that (a) it will support a load of its full nominal capacity without developing undue stresses or deflections, (b) it may reasonably be expected to withstand normal usage without undue impairment of accuracy or the correct functioning of parts, and (c) it will be reasonably permanent in adjustment.

14.14(1) Stability of indications. A scale shall be capable of repeating with reasonable precision its indications and recorded representations. This requirement shall be met irrespective of repeated manipulation of any scale element in a manner duplicating normal usage, including (a) displacement of the indicating elements to the full extent allowed by the construction of the scale, (b) repeated operation of a locking device, and (c) repeated application or removal of unit weights.

14.14(2) Interchange or reversal of parts. Parts which may readily be interchanged or reversed in the course of normal usage shall be so constructed that their interchange or reversal will not materially affect the zero-load balance or the performance of the scale. Parts which may be interchanged or reversed in normal field assembly shall be (a) so constructed that their interchange or reversal will not affect the performance of the scale or (b) so marked as to show their proper positions.

14.14(3) Pivots. Pivots shall be made of hardened steel, except that agate may be used in prescription scales, and shall be firmly secured in position. Pivot knife-edges shall be sharp and straight and cone-pivot points shall be sharp.

14.15(215) Weighbeams. All weighbeams, dials, or other mechanical weight-indicating elements must be placed on reinforced concrete footings or metal structural members. Concrete and metal must be of sufficient strength to keep mechanical weight-indicating elements in positive alignment with the lever system.

14.16(215) Whenever a scale is equipped with a beam box, the beam uprights, shelf and cap must be made of channel irons or I beams. The box covering the weighbeam may be constructed of wood or other material.

14.17(215) The steelyard, or beam rod, must be connected directly to the nose iron on the transverse lever on all motor truck and livestock scales.

14.18(215) The amount of weight indicated on the beam, dial, or other auxiliary weighing attachments, shall not exceed the factory-rated capacity of the scale, and said capacity shall be stamped on the butt of the beam (fractional bar is not included).

14.18(1) If auxiliary attachment is used, the amount of the auxiliary attachment must be blocked from the beam.

14.18(2) Normal position. The normal balance position of the weighbeam of a beam scale shall be horizontal.

14.18(3) Travel. The weighbeam of a beam scale shall have equal travel above and below the horizontal. The total travel of the weighbeam of a beam scale in a trig loop or between other limiting stops near the weighbeam tip shall be not less than the minimum travel shown in table 2; when such limiting stops are not provided, the total travel at the weighbeam tip shall be not less than eight percent of the distance from the weighbeam fulcrum to the weighbeam tip.

14.18(4) Weighbeam.

TABLE 2.—MINIMUM TRAVEL OF WEIGHBEAM OF BEAM SCALE BETWEEN LIMITING STOPS

Distance from weighbeam fulcrum to limiting stops Inches	Minimum travel between limiting stops Inch
12 or less	0.4
13 to 20, incl.	.5
21 to 40, incl.	.7
Over 40	.9

14.18(5) Poise stop. Except on a steelyard with no zero graduation, a shoulder or stop shall be provided on each weighbeam bar to prevent a poise from traveling and remaining back of the zero graduation.

14.18(6) Pawl. A poise on a notched weighbeam bar shall have a pawl with a rounded tip which will seat the poise in a definite and correct position at any notch, wherever in the notch the pawl is placed, and hold it there firmly and without appreciable movement. That dimension of the top of the pawl which is transverse to the longitudinal axis of the weighbeam shall be equal to the corresponding dimension of the notches.

14.18(7) Nominal capacity, marking. The nominal capacity shall be conspicuously marked a. on any scale equipped with unit weights, b. on any scale with which counter poise or equal-arm weights are intended to be used, and c. on any automatic-indicating or recording scale so constructed that the capacities of the several individual indicating and recording elements are not immediately apparent.

A small capacity uncompensated spring scale shall be conspicuously marked to show that the scale is illegal for use in the retail sale of foodstuffs other than fruits and vegetables.

14.19(215) Provision for sealing coin slot. Provision shall be made on a coin-operated scale for applying a lead-and-wire seal in such a way that insertion of a coin in the coin slot will be prevented.

14.20(215) Stock racks. A livestock scale shall be equipped with a suitable enclosure, fitted with gates as required, within which livestock may be held on a scale platform; this rack shall be securely mounted on the scale platform and adequate clearances shall be maintained around the outside of the rack.

14.21(215) Lengthening of platforms. The length of the platform of a vehicle scale shall not be increased beyond the manufacturer's designed dimension except when the modification has been approved by competent scale-engineering authority, preferably that of the engineering department of the manufacturer of the scale, and by the weights and measures authority having jurisdiction over the scale.

14.22(215) Accessibility for testing purposes. A large capacity scale shall be so located, or such facilities for normal access thereto shall be provided that the test weights of the weights and measures official, in the denominations customarily provided, and in the amount deemed necessary by the weights and measures official for the proper testing of the scale, may readily be brought to the scale by customary means; otherwise it shall be the responsibility of the scale owner or operator to supply such special facilities, including necessary labor, as may be required to transport the test weights to and from the scale, for testing purposes, as required by the weights and measures official.

14.23(215) Assistance in testing operations. If the design, construction or location of a large-capacity scale is such as to require a testing procedure involving special accessories or an abnormal amount of handling of test weights, such accessories or needed assistance in the form of labor shall be supplied by the owner or operator of the scale, as required by the weights and measures official.

14.24(215) Beam scale. One on which the weights of loads of various magnitude are indicated solely by means of one or more weighbeam bars either alone or in combination with counterpoise weights.

14.25(215) Spring scale. An automatic-indicating scale in which the counterforce is supplied by an elastic body or system of such bodies, the shape or dimensions of which are changed by applied loads. A "compensated" spring scale is one equipped with a device

intended to compensate for changes in the elasticity of the spring or springs resulting from changes in temperature, or one so constructed as to be substantially independent of such changes; an "uncompensated" spring scale is one not so equipped or constructed. A "straightface" spring scale is one in which the indicator is affixed to the spring without intervening mechanism and which indicates weight values on a straight graduated reading-face. (The use in a scale of metal bands or strips in lieu of pivots and bearings does not constitute the scale a "spring" scale.)

14.26(215) Weighbeam or beam. An element comprising one or more bars equipped with movable poises, or means for applying counterpoise weights or both.

14.27(215) Livestock scale. For purposes of the application of requirements for SR, tolerances and minimum graduations, a scale having a nominal capacity of six thousand pounds or more and used primarily for weighing livestock standing on the scale platform. (An "animal scale" is a scale adapted to weighing single heads of livestock.)

14.28(215) Tolerances on petroleum products measuring devices. All pumps or meters at filling stations may have a tolerance of not over five cubic inches per five gallons, minus or plus. All pumps or measuring devices of a large capacity shall have a maintenance tolerance of fifty cubic inches, minus or plus, on a fifty-gallon test. Add additional one-half cubic inch tolerance per gallon over and above a fifty-gallon test. Acceptance tolerances on large capacity pumps and measuring devices shall be one-half the maintenance tolerances.

14.29(215) If a meter is found to be incorrect and also capable of further adjustment, said meter shall be adjusted, rechecked and sealed. If a seal is broken for any cause other than by a state inspector, the department of agriculture shall be promptly notified of same.

14.30(215) G-S.4. All weighing or measuring devices shall be provided with appropriate recording or indicating elements, which shall be definite, accurate and easily read under any conditions of normal operation of the device. Graduations and a suitable indicator shall be provided in connection with indications and recorded representations designed to advance continuously. Graduations shall not be required in connection with indications or recorded representations designed to advance intermittently or with indications or recorded representations of the selector type.

14.31(215) S20-1. All gasoline or oil metering devices shall be equipped with an effective air eliminator to prevent passage of air or vapor through the meter. The vent from such eliminator shall not be closed or obstructed.

14.32(215) S20-2. No means shall be provided by which any measured liquid can be diverted from the measuring chamber of the meter or the discharge line therefrom. However, two or more delivery outlets may be installed, if automatic means is provided to insure that liquid can flow from only one such outlet at one time, and the direction of flow for which the mechanism may be set at any time is definitely and conspicuously indicated.

14.33(215) The specifications, tolerances, and regulations for commercial weighing and measuring devices, together with amendments thereto, as recommended by the National Bureau of Standards and published in National Bureau of Standards Handbook 44-3rd Edition and supplements thereto up to August 31, 1970, shall be the specifications, tolerances and regulations for commercial weighing and measuring devices in the state of Iowa, except as modified by state statutes, or by rules, adopted and published by the Iowa department of agriculture, and not rescinded.

[Filed December 14, 1965; amended November 21, 1966, November 15, 1967, August 30, 1968, September 10, 1969, September 15, 1970]

14.34(215) Inspection tag or mark.

14.34(1) If a meter is found to be inaccurate, an appropriate "Inaccurate" card and a "Repair and Placing in Service" card shall be left with the meter.

a. The "Inaccurate" card is to be retained by the LP-gas dealer after repair.

b. The "Repair and Placing in Service" card is to be forwarded to weights and measures division of the agriculture department.

14.35(215) If the meter has not been repaired within thirty days the meter will be condemned and a red condemned tag will be attached to the meter.

14.36(215) In accordance with the contemplated revision of National Bureau of Standards Handbook 44, Gur. 4.4 (Replacement of Security Seal), accredited repair and testing companies shall be authorized to affix a security seal, properly marked with the identification of such company.

14.37(215) Companies specializing in testing and repairing LP-gas meters shall be registered with the division of weights and measures as accredited repair and testing agencies upon meeting the requirements set forth by the department of agriculture.

14.38(215) In the delivery of LP-gas by commercial bulk trucks (bobtail) across state lines, it shall be mandatory for all trucks delivering products to be equipped with a meter that has been either tested by the state of Iowa or that carries the seal of an accredited meter service and proving company.

14.39(215) The location of all LP-gas liquid meters in retail trade shall be listed, by the owner, with the department of agriculture.

14.40(215) Upon putting a new or used meter into service in the state of Iowa, the user shall report to the weights and measures division.

MOISTURE-MEASURING DEVICES

14.41(215A) All moisture-measuring devices will be tested against a measuring device which will be furnished by the department and all moisture-measuring devices will be inspected to determine whether they are in proper operational condition and supplied with the proper accessories.

14.42(215A) Moisture-measuring devices may be rejected for any of the following reasons:

14.42(1) The moisture-measuring device tested is found to be out of tolerance with the measuring device used by the department by one of the inspectors so assigned by more than one-half of one percent on grain under twenty-percent moisture content.

14.42(2) The person does not have available the latest charts for type of device being used.

14.42(3) The person does not have available the proper scale or scales, and thermometers for use with the type of device being used.

14.42(4) The moisture-measuring device is not free from excessive dirt, debris, cracked glass, or is not kept in good operational conditions at all times.

These rules are intended to implement chapters 210, 212, 213, 214, 215 and 215A, of the Code.

[Filed November 18, 1963; amended September 14, 1965; December 14, 1965; November 21, 1966; November 15, 1967; September 10, 1969; September 22, 1969; September 15, 1970]

CHAPTER 15

HOTEL, RESTAURANT AND FOOD ESTABLISHMENTS

15.1(170) License required. A boarding house is not a restaurant unless they cater to transient guests. A boarding house catering to transient guests is classified as a restaurant and, therefore, must have a restaurant license.

15.2(170) Sanitary regulations.

15.2(1) Perishable food shall mean any food of such type or in such condition as may spoil.

15.2(2) Potentially hazardous food shall mean any perishable food which consists in whole or in part of milk or milk products, eggs, meat, poultry, fish, shellfish, or other ingredients capable of supporting rapid and progressive growth of infectious or toxigenic microorganisms.

15.3(170) Temperatures and proper care of foods.

15.3(1) All perishable food shall be stored at such temperatures as will protect against spoilage.

15.3(2) All potentially hazardous food shall, except when being prepared and served, when being displayed for service, be kept at 45° F. or below, or 140° F. or above.

15.3(3) All potentially hazardous food, when placed on display for service, shall be kept hot or cold as required hereafter:

If served hot: Displayed in or on a heated facility which can maintain the temperature of such food at 140° F. or above.

If served cold: Displayed in or on a refrigerated facility which can maintain the product temperature at 45° F. or below.

15.3(4) Frozen food shall be kept at such temperatures as to remain frozen.

15.3(5) When ready for preparation, potentially hazardous frozen food shall be thawed or prepared for use in the following ways:

a. Thawed at refrigerator temperature of 45° F. or below.

b. Thawed under pure running water 70° F. or below.

c. Quick thawed as part of the cooking process.

d. Thawed at room temperature if food is immediately refrigerated or cooked after thawing.

In any event, food which is to be thawed by any of the above ways must be put into appropriate containers which will provide for sanitary care of the food during thawing.

15.3(6) Hollandaise and other potentially hazardous sauces prepared from fresh ingredients must be discarded as waste within three hours after preparation. Where such sauces require eggs as an ingredient, only shell eggs shall be used.

15.3(7) Custards, cream fillings, or similar products which are prepared by hot or cold processes, shall be kept at safe temperatures, except during necessary periods of preparation and service. Pastries or puddings shall meet the following requirements as applicable:

a. Pastry fillings shall be placed in shells, crusts, or other baked goods immediately following preparation or shall be refrigerated at 45° F. or below in shallow pans, immediately after cooking or preparation and held thereat until combined into pastries, or served.

b. All completed custard-filled and cream-filled pastries shall, unless served immediately following filling, be refrigerated at 45° F. or below promptly after preparation, and held thereat pending service.

15.3(8) Sugar, catsup and mustard shall be kept in covered or closed containers at all times. Sugar bowls which contain loose unpackaged sugar will not be permitted.

15.3(9) Mayonnaise and other similar preparations must be kept refrigerated at 45° F. or lower after opening.

15.4(170) Storage of food.

15.4(1) Wet storage of packaged food will not be permitted.

15.4(2) Food must be covered, wrapped or placed in proper container to prevent contamination.

15.4(3) Dry ingredients which have been opened must be placed in tight covered plastic, glass, or metal containers.

15.4(4) Storage facilities must be kept clean and provide adequate storage space and be located in such a place as to protect food from contamination and unsanitary conditions.

15.4(5) Racks, shelves and other surfaces must be free of corrosion, rust and other unsanitary conditions.

15.4(6) Food in cartons, bags or other containers kept in storerooms, basements, warehouses or other places, shall be placed on platforms, racks or pallets so as to allow space of at least four inches above the floor and sufficient space from the wall for proper pest control.

15.5(170) Garbage.

15.5(1) All garbage must be kept in metal or plastic containers with tight-fitting lids. Inside garbage cans must be emptied, thoroughly washed and disinfected daily.

15.5(2) All garbage and refuse must be moved from premises regularly so as not to create problems with insects and rodents, offensive odors or health or fire hazards.

15.6(170) Towels.

15.6(1) Individual sanitary towels are approved by the department.

15.6(2) Air driers are approved by the department.

15.6(3) Cloth towel dispensers that offer a clean section of towel each time used, are approved and are not considered roller towels, provided they are serviced regularly and not allowed to leave a loose end of toweling hanging when the roll reaches the end.

15.6(4) Soiled linens, towels, etc. must be kept in proper containers and kept away from food preparation and serving areas.

15.7(170) Approved methods of washing and sanitizing glasses, plates, cups, saucers, dishes and silverware.

15.7(1) Manual dishwashing. Adequate facilities must be provided which include:

a. Space for prescraping and removing all food possible from dishes before washing.

b. Proper garbage disposal.

c. Sufficient hot water supply.

d. A three-compartment sink large enough to handle the volume of dishes. Each

compartment must be capable of being supplied with hot and cold running water.

- e. A drainboard.
- f. Racks for clean dishes.
- g. Effective cleansing agent.
- h. Effective sanitizing materials.

Procedure is as follows:

After the dishes are prescraped, they must be washed in the first compartment using an effective detergent or other approved cleansing agent and a brush or swab. The temperature of this wash water should be 110° to 120° F. The dishes are then rinsed in hot water in the second compartment to remove all detergent or other approved cleansing agent and suds. Temperature of this rinse should be 110° to 120°F. Finally, the dishes are sanitized in the third compartment of the sink by immersing them for at least one minute at a temperature of not less than 75° F. in a sanitizing solution which contains one of the following:

At least 100 PPM of available chlorine.

At least 200 PPM of a quaternary ammonium compound.

Any other sanitizing agent which has been demonstrated to the satisfaction of the department of agriculture to be effective and non-toxic under use conditions and for which a suitable field test is available.

In using any of these sanitizers, it is important to follow the directions on the label of the product carefully and to measure amounts accurately.

After dishes and silverware are sanitized, they should be allowed to drain dry in racks or on a corrugated surface. The use of towels for drying dishes or silverware is prohibited.

Care should be used in handling the dishes after washing to see that the fingers do not come in contact with the drinking edge of the cups and glasses or the parts of spoons and forks that are placed in the mouth or the blades of knives.

Cups and glassware should be stored upside down on corrugated mats or in racks and be protected from dust and dirt. Dishes, cups, glassware and silverware must never be stored on cloth or paper towels, newspapers, etc. Silverware should be stored in a sanitary manner in such a way that only the handles will be touched when transferred to service.

15.7(2) Mechanical dishwashing machines. Dishwashing machines shall:

- a. Be of such materials and so designed and constructed as to be easily cleanable.
- b. Shall be capable when operated properly of rendering all surfaces of equipment and utensils clean and sanitary.
- c. Wash water shall be kept reasonably clean.
- d. Rinse water tanks shall be so protected by distance, baffles, or other effective means as to minimize the entry of wash water into the rinse water.

e. The wash water temperature shall be kept at least 140° F.

f. The final rinse water shall be at a temperature of at least 180° F. at the entrance of the manifold.

g. When chemicals are relied upon for sanitization, they shall be of a class or type approved by the department and shall be applied in such concentration for such a period of time to provide effective bactericidal treatment of the equipment and utensils.

h. Conveyors in dishwashing machines shall be accurately timed to assure proper exposure times in wash and rinse cycles.

i. An easily readable thermometer shall be provided for reading temperature of wash water.

j. An easily readable thermometer shall be provided for reading temperature of rinse water.

k. Jets, nozzles, and all other parts of each machine shall be maintained free of chemical deposits, debris, and other soil. Automatic detergent dispensers, if used, shall be kept in proper operating condition.

Procedure is as follows:

After the dishes are prescraped and placed in racks and run through the wash and rinse cycle, they should be allowed to drain dry in racks or on a corrugated surface. The use of towels for drying dishes or silverware is prohibited.

Care should be used in handling the dishes after washing to see that the fingers do not come in contact with the drinking edge of cups and glasses or the parts of spoons and forks that are placed in the mouth, or the blades of knives.

Cups and glassware should be stored upside down on corrugated mats or in racks and be protected from dust and dirt. Dishes, cups, glassware and silverware must never be stored on cloth or paper towels, newspapers, etc. Silverware should be stored in a sanitary manner in such a way that only the handles will be touched when transferred to service.

Any other type of machine, device, or facilities and procedures may be approved by the department for cleaning or sanitizing equipment and utensils, if it can be readily established that such machine, device, or facilities and procedures will routinely render equipment and utensils clean to sight and touch, and provide effective bactericidal treatment as demonstrated by an average plate count per utensil surface examined, of not more than 100 colonies.

15.8(170) Medical certification.

15.8(1) The department may require medical certification as proof of freedom from infection with any communicable disease.

15.9(170) Sanitary regulations.

15.9(1) Insecticide vaporizers using lindane or any other insecticide that could contaminate food must not be used in rooms or

areas where food is prepared or served except under the supervision of a pest control operator licensed under the Iowa state department of agriculture.

These rules are intended to implement chapter 170 of the Code.

[Filed January 11, 1966; amended September 13, 1966; December 16, 1966]

CHAPTER 16

DAIRY TRADE PRACTICES

16.1(192A) Schools, churches and other charitable institutions not operated for profit.

16.1(1) The exemption in section 192A.1(7) of the Code of schools, churches and other charitable institutions not operated for profit applies to both dairy products and equipment.

16.1(2) The exemption does not apply to a catering service or a fraternity buying group. The test is whether or not the business is done directly with the school, church or institution and not with a third person.

16.1(3) Whether or not an institution qualifies as a charitable institution not operated for profit and thus is exempt from the Act is a matter of fact under the circumstances. It will depend on its origin, objects, charter and how it conducts its business. Membership organizations whose benefits accrue to the membership are not charitable institutions. Public institutions such as jails, county homes, mental health institutions, prisons, etc., are charitable organizations not operated for profit and exempt from the law.

16.2(192A) Sales.

16.2(1) A lease with option to buy paid for within thirty-six months is a sale within the meaning of section 192A.1(9) of the Code.

16.3(192A) Price differentials and discounts.

16.3(1) Section 192A.3 of the Code applies to both wholesale and retail sale of dairy products.

16.3(2) Price differentials, allowed under section 192A.3(1) of the Code must be cost justified.

16.3(3) Central billing or group discounts must be cost justified.

16.3(4) Differentials between name brand dairy products and private label must be cost justified.

16.3(5) A deviation filed to meet an equally low price of a competitor will continue only so long as the equally low price of a competitor exists. When the price of the competitor is changed, the deviation must be withdrawn.

16.3(6) Discounts and rebates to be allowed must be cost justified.

16.3(7) Discounts shall be determined on the basis of units delivered so far as ice cream is concerned and on dollar amounts so far as milk is concerned.

16.4(192A) Definitions.

16.4(1) Stop. Refers to a location. As used here, a stop is a retail food store.

16.4(2) Delivery. The process of transferring a product from one location to another. If the wholesaler services a stop two times in one day, two deliveries have been made whether or not merchandise is left at the stop.

16.4(3) Service time. Time that can be allocated directly to a stop. This includes time for securing the order, putting up the order, servicing the case, stamping merchandise, collecting, and all other functions performed at the stop by the deliveryman.

16.4(4) Methods of delivery.

a. Full Service — includes secure the order, put up the order, service the case and sometimes the storage cooler, make out the bill, accept outdated merchandise, stamping merchandise, and collect (cash, check or extension of invoice for signature.)

b. Modified Drop — includes put up order, put the product in the storage cooler and preordering of merchandise. This procedure does not include checking outdated merchandise or the acceptance of outdated merchandise.

c. Drop Service — the product is prearranged in the truck for each store. The product is put on the dock or the backroom of the store. The merchandise is preordered. This procedure does not include checking outdated merchandise or the acceptance of outdated merchandise.

16.4(5) First distributor. Under section 192A.30 of the Code, the word "processor" shall be construed to mean any processor or distributor that sells any processed dairy product or dairy products in Iowa, in the first instance.

16.5(192A) Equipment.

16.5(1) Six percent annual interest means not less than six percent interest on the unpaid balance on a declining balance. Any higher statutory rate is permitted.

16.5(2) The minimum selling price on new equipment is cost plus transportation and installation cost plus six percent markup. If sold on a conditional sales contract, the minimum interest to be added is six percent interest on the unpaid balance on a declining balance. Any sale under this section requires a ten percent down payment.

16.5(3) When a sale is reported, copy of the conditional sales contract or bill of sale and recording or filing number in the county where the equipment is located, is required to be attached to the report.

16.5(4) Failure to collect or repossess on a conditional sale would be in violation of the law.

16.5(5) Sale must be reported within seventy-two hours after installation.

16.6(192A) Gifts and promotions.

16.6(1) The general effect of sections 192A.13, 192A.14, 192A.15 of the Code is to:

a. Prohibit processors and distributors from extending payments and gifts that may buy or retain accounts.

b. Absolutely prohibit certain types of gifts and sales promotions practices.

c. Specify promotional types of activities that are lawful.

16.6(2) "Free goods", as defined in section 192A.13, means one or more items of personal property:

a. That is given gratuitously without increase in the regular purchase price of the dairy products it is offered with, or that is given gratuitously without charging the purchaser an additional sum over the regular purchase price of the dairy product it is offered with, or

b. For which the wholesaler does not receive monetary consideration from any recipient thereof.

For example, it is unlawful for a processor or distributor to:

Give a retailer a free, extra quantity of selected dairy products upon his purchasing of a certain volume of product.

Supply a retailer with free merchandise to be given away by him to the consumer with the consumer's purchase of selected dairy products (balloons, pencils, coins, food products, potholders, etc.). However, there is no prohibition against a wholesaler supplying sample food products which can reasonably be expected to be consumed on the retailer's premises.

Supply a retailer with free merchandise to be sold by him in combination with or on the condition of a consumer's purchase of dairy products.

Run a "cents-off" purchase price coupon in newspapers that is redeemable at any retailer by the consumer upon his purchase of dairy product. The giving of coupons amounts to an offer to give money and the redemption of coupons is in effect, the giving of money. The result is no different than attaching a coin to a carton of milk.

Print a "refund" coupon on the package of a selected dairy product or provide a separate coupon whereby a consumer can receive a cash refund by sending the imprinted coupon or portion of package and separate coupon to the wholesaler or a third party.

Offer premiums of merchandise which the consumer may obtain by redeeming coupons printed on selected dairy products.

Offer premiums of merchandise which the consumer may obtain by redeeming coupons and paying an additional cash amount which does not fully compensate the wholesaler for the value of the merchandise.

Run a contest among its retail store accounts and give a prize to retailers for increases in volume of sales.

Reimburse a retailer for the cost of merchandise or other items of value given away by a retailer for promotional purposes.

Furnish retailers with free merchandising aids, such as tote bags for milk unless packaged at plant, recipe booklets, potholders.

Furnish retailers with the service of store personnel whose wages are paid by the wholesaler.

More than four promotions per year or more than one item per promotion being offered to any retailer, is a price reduction and a violation of the statute. However, nothing in this rule shall prevent the promotion offered to the retailer from including more than one item per promotion but each item so offered shall be considered a separate promotion. By this rule the department does not restrict the choice of item or items so offered.

Equipment may not be furnished for a promotion, which is predominantly commercial in nature, run at a retail store location, incidental to the retailer's course of business.

Furnishing of dispensers, freezers, etc., on the retail route without charge is the furnishing of free goods.

Transactions allowed by statute:

The furnishing of point of sale advertising material that remains inside retailer locations made of paper, cardboard or other material not of a permanent nature for use in the promotion of products of such wholesaler.

Examples: Advertising display material such as picture signs or balloons with wholesaler's name, unprinted menu forms advertising the dairy's products but not including creamers or permanent wall-type menu board signs.

The furnishing of hostesses or demonstrators at any retailer's location to promote the products of the wholesaler, processor or distributor may also use equipment incidental to the function of its hostesses or demonstrators, such as equipment used for storage or for display for sale. However, such equipment must be used only by such hostesses or demonstrators. It may not be used by the retailer for any purpose.

The advertising by a wholesaler of his own products through any advertising media he selects which does not involve allowances, payment for furnishing of other property to persons purchasing such products in a manner prohibited by this section.

Examples: Newspaper, radio or television advertising and printed material such as flyers, which only advertises the dairy and does not identify any retailer. Clock advertising signs are generally permitted under 16.6(1) "c".

Advertising allowances which do no more than reimburse a retailer for his costs in advertising the wholesaler's selected dairy products. Payments must be in the form of reimbursement and not paid in advance.

Examples: A dairy may pay a retailer for only that portion which advertises the dairy's

products. A dairy cannot pay national line rates if local advertising rates are lower.

Conduct otherwise permitted by this section.

16.7(192A) Consumption on the sale premises.

16.7(1) The provision in section 192A.15 of the Code "being consumed on the sale premises" means that at the retail store the dairy products given away must be in such form and quantity as they would, in fact, be consumed on the premises and when given away on the retail route at the home of the prospective purchaser, shall not exceed one quart of milk and the smallest sample carton produced of one other product.

16.7(2) This section is also interpreted to mean that dairy may also use equipment, incidental to giving away its products. However, such equipment may not be used by the retailer for storage or display for sale. The dairy must conspicuously display that the dairy — not the retailer — is giving away the product.

16.8(192A) Fees.

16.8(1) Under section 192A.30 of the Code, fees on ice cream mix, cottage cheese and ice milk mix will be based on the milk which was processed to make the ice cream mix, cottage cheese and ice milk mix. The fee on novelties sold within the state will be based on a formula that three dozen novelties is the equivalent of a gallon of ice cream.

16.9(192A) Price filing guide.

16.9(1) Under 192A.7 of the Code, new prices whether lower or higher shall be filed with the secretary of agriculture ten days prior to the effective date. Nothing in this rule shall abrogate the provisions of lines 28 through 40 of section 192A.7 of the Code.

16.9(2) Prices to be filed include processor and distributor prices to retailers, retail outlets, wholesalers, jobbers, and distributors.

16.10(192A) Loan guide. Any account where any balance of the purchase price is due the processor, distributor, or broker, as set forth in sections 192A.10 and 192A.16 for forty-five days or more shall be interpreted by the department as a loan and a violation per se of the statute.

16.11(192A) Additive variant. The words "any additive variant of any dairy product" as used in section 192A.1(1) of the Code shall be construed to include any product containing caseinate or sodium caseinate derived from milk.

These rules are intended to implement chapter 192A of the Code.

[Filed December 28, 1966; amended January 11, 1968, May 14, 1968]

CHAPTER 17

MEAT AND POULTRY INSPECTION

17.1(189A) Part 301 of Title 9, Chapter III, of the code of Federal Regulations as amended by the Meat Inspection Regulations of the United States Department of Agriculture, Consumer and Marketing Service in the Federal Register, Volume 35, Number 193, Part II, on October 3, 1970, is hereby adopted in its entirety by reference and in addition thereto the following subsections shall be expanded to include:

1. Sec. 301.2(a) therein defining the term "act" shall include the Iowa meat and poultry inspection Act, chapter 189A, of the Code.

2. Sec. 301.2(b) therein defining the term "department" shall include the Iowa department of agriculture.

3. Sec. 301.2(c) therein defining the term "secretary" shall include the secretary of agriculture of the state of Iowa.

4. Sec. 301.2(d) therein defining the term "consumer and marketing service" shall include the Iowa meat and poultry inspection service.

5. Sec. 301.2(e) therein defining the term "administrator" shall include the director of the Iowa meat and poultry inspection service or any officer or employee of the Iowa department of agriculture.

6. Sec. 301.2(j) therein defining the term "officer in charge" shall include the officer in charge of an area.

7. Sec. 301.2(t) therein defining the term "commerce" shall include intrastate commerce in the state of Iowa.

8. Sec. 301.2(u) therein defining the term "United States" shall include the state of Iowa.

17.2(189A) Part 303, Part 306, Parts 308 through 320, Parts 323 through 326 and Part 329 of Title 9, Chapter III, of the code of Federal Regulations as amended by the Meat Inspection Regulations of the United States Department of Agriculture, Consumer and Marketing Service in the Federal Register, Volume 35, Number 193, Part II, on October 3, 1970, are hereby adopted in their entirety by reference. Part 305 except section 305.2, Part 307 except section 307.6, Part 325 except sections 325.3 and 325.12 of Title 9, Chapter III, of the code of Federal Regulations as amended by the Meat Inspection Regulations of the United States Department of Agriculture, Consumer and Marketing Service, in the Federal Register, Volume 35, Number 193, Part II, on October 3, 1970, are hereby adopted in their entirety by reference.

17.3(189A) Whenever an official form is designated by federal regulation, the appropriate Iowa form will be substituted and whenever an official mark is designated the following official Iowa marks will be substituted.

IOWA INSP'D AND CONDEMNED



These rules are intended to implement chapter 189A.

[Filed July 12, 1966; amended November 14, 1966; September 26, 1967; February 10, 1971]

CHAPTER 18 BRANDING OF LIVESTOCK

18.1(187) Location of brands on livestock.

18.1(1) Brands shall be recorded on one of either sides on the animals, in any one

of three locations, to wit: The shoulder, rib, or hip.

18.1(2) Each location is considered a separate brand and not in or under conflict with the same or similar brand in a different location or on a different side.

18.2(187) Brands in conflict.

18.2(1) Whenever two or more brands are determined by the secretary, to be in or under conflict, the secretary shall give written notice to the brand owners.

18.2(2) When herds bearing a similar brand are maintained in close proximity to each other, and the secretary determines that confusion or conflict may arise therefrom; then the secretary shall direct such change or changes in the position of the brands, so as to remove such confusion or conflict.

18.2(3) When two or more brands are determined, by the secretary, to be in or under conflict, then the owner having recorded said brand on the earliest date shall be given preference in retaining said brand.

[Filed September 26, 1967]

APPEAL BOARD, STATE

CHAPTER 1 TORT CLAIMS

1.1(25A) **Definitions.** As used in these rules, "state agency," "employee of the state," "claim," and "award" bear the definitions ascribed to them in section 25A.2 of the Code. "Board" means "state appeal board" as defined in section 23.1 of the Code. "Executive secretary" means executive secretary of the state appeal board.

1.2(25A) **Meetings of board.** The board shall meet at a time and place fixed by the chairman or a majority of the board.

1.2(1) **Orders of board.** The board shall be considered in continuous session for the purpose of entering orders, issuing determinations, and making awards.

1.2(2) **Quorum.** A majority of the membership of the board shall constitute a quorum for the transaction of all business. But the compromise, settlement, or allowance of any claim in an amount larger than \$5,000 shall require the approval of all members of the board and of the district court of Polk county.

1.2(3) **Executive secretary.** The state comptroller shall appoint an employee of his office to serve as executive secretary of the board.

1.3(25A) **Form of claims.** All claims should be typewritten, but claims printed by hand will be accepted if legible.

1.3(1) **Place of filing.** Claims shall be filed in triplicate with the State Comptroller, State Capitol, Des Moines, Iowa 50319.

1.3(2) **Verification.** Claims shall be verified.

1.3(3) **Names and signatures.** Claims shall state thereon the names, addresses and telephone numbers of the person making the claim and of the attorney, if any, preparing or assisting in preparing the claim, and their signatures.

1.3(4) **Designation by number.** The executive secretary shall assign a number to each claim. Thereafter it may be referred to by such a number.

1.4(25A) **Content.** All claims shall set forth information as follows:

1.4(1) **Description of accident.** State, in detail, all known facts and circumstances attending the damage or injury, identifying persons and property involved and the cause thereof.

1.4(2) **In connection with personal injuries or death.**

a. A detailed description of the nature, extent, and duration of any and all injuries.

(1) The names and addresses of any and all physicians, surgeons, dentists or other medical personnel providing treatment or services.

(2) The dates and places of the treatments or services.

(3) The date of the final treatment or service, and the name of the physician or other person providing same.

(4) If treatment or services are continuing, the name and address of each physician or other person rendering said treatment or service, and the nature of the treatment or service.

b. The name and address of any hospital in which claimant is or was confined, and the dates of admission and discharge.

c. The name and address of any and all persons who have taken the X-rays of claimant, the dates of such X-rays, and a statement as to what the X-rays purportedly established.

d. A statement as to any pre-existing injury, illness, or condition, the nature of such pre-existing injury, illness or condition, and the name and present address of each physician or other person who has rendered or who is rendering treatment for such disability.

e. If employed at the time of the injury or death, the name and address of the employer, the position or job held and nature of the work performed, the average weekly wage or salary for the year immediately past, the period of time lost from employment (dates), and the sum of wages or salary claimed to have been lost, if any, by reason of injuries or death.

f. If other loss of income, profit or earnings is claimed, the amount of such loss or losses and how computed, the source of such loss, the date of deprivation thereof, the period of time, and whether it is continuing.

g. Name and address of present employer, if claimant has returned to work, the position or job held, the nature of the work being performed, and present weekly wages, earning, income or profits.

h. Itemization in detail of any and all moneys expended or expenses incurred in connection with said claim.

i. Names and addresses of all persons who have personal knowledge of any facts relating to said claim.

1.4(3) In connection with property damage or loss.

a. Motor vehicle.

(1) Make, model, year.

(2) Date of purchase and purchase price.

(3) Cost estimates for repairs or actual costs thereof, with copies of estimates or bills.

(4) Specific part or parts allegedly damaged.

(5) Names and addresses of any and all persons having personal knowledge of any facts relating to the claim.

b. Other property.

(1) Nature and description of such other property or items of property separately listed.

(2) Method by which such property was acquired. If purchased, then the name

of the person or place from which purchased, the price, date and usage made of the property.

(3) Depreciated value at date of damage or loss.

(4) Cost estimates for repairs, or actual costs thereof with copies of cost estimates made or of bills paid.

(5) Names and addresses of any and all persons having personal knowledge of any facts relating to the claim.

1.5(25A) Allegations denied. No answer to a claim shall be required of the state, and all allegations of the claim shall be treated as denied pending final disposition.

1.6(25A) Attorney general. The executive secretary shall deliver or cause delivery of two copies of each claim to the special assistant attorney general assigned to claims.

1.7(25A) Investigation. Upon receipt of said copy, the special assistant attorney general shall investigate the claim. He shall ex officio be empowered to administer oaths or may take testimony in the form of affidavits, depositions or oral or written interrogatories, or otherwise. He may compel the attendance of witnesses and certify to any district court for contempt.

1.8(25A) Notification. The special assistant attorney general shall notify the claimant or his attorney, in writing, of the board's determination and of the amount of the award, if any.

1.9(25A) Release or covenant not to sue. The claimant shall be required to execute a release of the claim or a covenant not to sue in consideration of the amount of the award fixed by the board.

1.10(25A) Acceptance. Return of the release or covenant not to sue properly executed by the claimant or his attorney shall constitute acceptance of the award in full settlement of the claim.

1.11(25A) Attorney fee affidavit. Along with the executed release or covenant not to sue the claimant's attorney shall submit in affidavit form the amount of his attorney fees in connection with his services to claimant.

1.12(25A) Warrant. If the board determines the claimant's attorney's fees to be reasonable and the release or covenant not to sue properly executed the comptroller shall cause the issuance of a warrant in the amount of the award, payable to claimant and to his attorney, if he has one.

1.13(25A) Withdrawal. Withdrawal of claims shall be by notice in writing addressed to the State Appeal Board, Office of the State Comptroller, Des Moines, Iowa 50319.

[Filed June 16, 1967; amended September 26, 1967, August 12, 1970]

APPENDIX TO RULES

This appendix is not a part of the rules and has not been adopted by the state appeal board. The forms are not official forms and their use is not mandatory except to the extent that they incorporate provisions required by the rules.

The following forms are suggested as aids to claimants.

Form A, Iowa Tort Claims Act

State Appeal Board of the State of Iowa
CLAIM AGAINST THE STATE OF IOWA
(For damages under the Iowa Tort Claims Act)

CLAIMANT
Claim No.

1. Post-office address of Claimant:
.....

2. Nature of claim (check one):
Personal injury
Property damage
Both of above

3. Time, date, and place claim arose:
.....

4. State agency and employee whose act or omission gave rise to this claim:
.....

5. Attached hereto and made a part of this claim are:
Statement of facts, personal injury
Statement of facts, property damage
(Note: Statements of facts are those required by rules 1.4(2) and 1.4(3). They should be as detailed as possible).

6. Amount of award claimed as compensation:
For personal injury
For property damage
Total award claimed

7. I (am) (am not) represented by an attorney.
.....
Claimant's signature
Address
Telephone No.
.....
Attorney for Claimant
Address
Telephone No.

STATE OF IOWA }
COUNTY OF } ss.

I,, being duly sworn, depose and say that I am the claimant herein, and have read the foregoing claim filed by me or on my behalf, and that the facts stated therein are true as I verily believe.

.....
Claimant's signature

Subscribed in my presence and sworn to before me by the said,
this day of, 19

Notary Public

Form B, Iowa Tort Claims Act
State Appeal Board of the State of Iowa
CLAIM AGAINST THE STATE OF IOWA
(For damages under the Iowa Tort Claims Act)

CLAIMANT
Claim No.

REQUEST FOR HEARING¹

To: EXECUTIVE SECRETARY
STATE APPEAL BOARD

COMES NOW the claimant herein and requests a hearing on the issues arising under his claim. Said claim was filed with the State Comptroller on the day of, 19

.....
Claimant's signature
Address
Telephone No.
.....
Attorney for Claimant
Address
Telephone No.

¹A request for hearing must be filed within thirty (30) days after the claim is filed with the state comptroller (Rule 1.11). If claimant desires to depose a state employee, or submit interrogatories to be answered in writing, he must file with his request for hearing, applications to do so (Rules 1.9, 1.10).

Form C, Iowa Tort Claims Act
State Appeal Board of the State of Iowa
CLAIM AGAINST THE STATE OF IOWA
(For damages under the Iowa Tort Claims Act)

CLAIMANT
Claim No.
APPLICATION TO
TAKE DEPOSITION¹

COMES NOW the claimant herein and files this application in triplicate for the taking of the deposition of the following employee of the State of Iowa:

- 1. Name:
2. State agency which employs him:
.....
3. Place of employment:
.....
4. Name and address of immediate superior (if known):
.....
5. Time, date, and place preferred for taking of deposition:

6. Is person named the person whose act or omission gave rise to this claim?
Yes No

7. Reasons why deposition is sought

8. I (am) (am not) submitting written interrogatories.

Signature of Claimant or Attorney

Address

Telephone No.

The application shall be filed with the request for hearing. (Rule 1.9).

Form D, Iowa Tort Claims Act

State Appeal Board of the State of Iowa

CLAIM AGAINST THE STATE OF IOWA
(For damages under the Iowa Tort Claims Act)

CLAIMANT
Claim No.
APPLICATION FOR
CONTINUANCE

COMES NOW the claimant herein and requests continuance of the hearing on his claim previously set for the day of, 19...., at o'clock, at (place), for the reasons that:

Claimant's (or attorney's) signature
Address

ARCHITECTURAL EXAMINERS

CHAPTER 1

REGISTERED ARCHITECTS

1.1(118) Examinations shall be in two classes known as Standard N.C.A.R.B. Written Examinations and Standard N.C.A.R.B. Senior Examinations.

1.2(118) Examinations. The board of architectural examiners hereby adopts and incorporates by reference as fully as if set out herein, the standards contained in section I, "Examinations" of Circular of Information No. 3-69 issued by the National Council of Architectural Registration Boards.

1.3(118) Admission to examinations. The board of architectural examiners hereby adopts and incorporates by reference as fully as if set out herein, the standards contained in section E, "Standards for Admission to the NCARB Examinations" of Circular of Information No. 3-69 issued by the National Council of Architectural Registration Boards.

1.4(118) Education and training equivalents. The board of architectural examiners hereby

adopts and incorporates by reference as fully as if set out herein, the standards contained in section F, "Education and Training Equivalents" of Circular of Information No. 3-69 issued by the National Council of Architectural Registration Boards.

1.5(118) Professional experience equivalents. The board of architectural examiners hereby adopts and incorporates by reference as fully as if set out herein, the standards contained in section G, "Professional Experience Equivalents" of Circular of Information No. 3-69 issued by the National Council of Architectural Registration Boards.

1.6(118) Council record. Each applicant for registration to practice architecture in the state of Iowa shall present a council record prepared by the N.C.A.R.B. to the board for their files. Applicants for the written examinations are required to make application to N.C.A.R.B. for a council record at least six weeks before the personal audience is held.

[Filed April 8, 1970]

AUDITOR OF STATE

INDUSTRIAL LOAN DIVISION

CHAPTER 1

INDUSTRIAL LOANS

1.1(536A) Licenses. The license and current license renewal card of each licensee shall be prominently displayed and available for easy reading by the public in the place of business of the licensee.

1.2(536A) Multiple business authorization. This regulation shall be known as the "Multiple Business Regulation." Any authorization granted by this regulation shall be conditional upon full compliance with all parts thereof.

Printed copies of the "Application for Multiple Business Authorization" shall be obtained from the office of Auditor of State, Division of Industrial Loan Audits, State Capitol Building, Des Moines, Iowa 50319. The printed application form shall be used by each licensee when applying for multiple business authorization. All information shall be supplied in full and where space is inadequate for a full answer, a rider shall be attached.

1.3(536A) Other business in same office. The auditor of state, upon receiving a completed application from a licensee, may authorize that licensee to conduct its industrial lending

business within the same office, room, suite or place of business in which any other business is conducted except that no authorization will be granted to a licensee to conduct its industrial lending business within the same office, room, suite or place of business where the sale of tangible personal property is conducted; except that the sale of repossessed property shall be allowed.

1.4(536A) Examination of books. The auditor of state or his duly appointed representative shall have the right to examine and investigate the books, accounts and records wherever situated of all businesses authorized or conducted, by a licensee licensed pursuant to chapter 536A of the Code. All books, accounts, and records pertaining to businesses conducted pursuant to such license, shall be made readily available to the examiners who may investigate without prior notice.

1.5(536A) Index. An alphabetical index shall be maintained for each borrower, endorser, comaker, surety or other party currently indebted to the licensee or to any other business operated within the same office, room, suite or place of business. The index shall show the following information:

The name of the obligor, the account number assigned to the obligor's indebtedness, the type of indebtedness (small loan, industrial loan, insurance, receivable, etc.), information showing whether the obligor is other than a borrower, and sufficient information to locate all account ledger cards.

1.6(536A) Account ledger cards. Account ledger cards relating to each type of business operation must be filed in separate groups. Paid-in-full or renewed account ledger cards must also be filed in similar manner and must be retained as a separate group for at least three years following the annual examination.

1.7(536A) Account ledger card control. A record shall be maintained in the licensed office showing the total number and amount of the account ledger cards for each type of business conducted. This record shall be posted either daily or weekly.

1.8(536A) Dual loans. If any person or husband and wife, individually or together, are indebted in any amount under the provisions of the Iowa small loan law, no loan shall be made by the same office to said person or husband and wife, individually or together, under the Iowa industrial loan law.

1.9(536A) Loan conversion. If any person or husband and wife, individually or together, are indebted in any amount on a loan made under the provisions of the Iowa industrial loan law, no loan shall be made to said person or husband and wife, individually or together, under the Iowa small loan law unless the proceeds of the small loan, after deducting insurance premiums, exceed by two hundred dollars or more the amount necessary to pay in

full the balance due on the industrial loan, after the normal rebates have been made. The proceeds of the small loan shall, to the extent necessary, be applied to pay off the balance of the industrial loan.

1.10(536A) Advertising limitations. There shall be no direct or indirect indication whatsoever in any advertisements that loans made under the Iowa industrial loan law are subject to the Iowa small loan law; and likewise, no advertising for loans to be made under the Iowa small loan law shall indicate that such loans are subject to the Iowa industrial loan law.

1.11(536A) Type in advertising. The size and face of the type used in describing the two types of loans shall be the same.

1.12(536A) Multiple business revocation. If the licensee or other business affiliate fails to comply with all conditions set forth in this regulation, the auditor of state, upon giving ten days advance written notice to the licensee by certified mail stating his contemplated action and the grounds thereof, and after granting the licensee an adequate hearing, may revoke the licensee's authorization to conduct a multiple business operation.

1.13(536A) Books and records. Licensees shall be required to preserve their books, accounts, and files for a minimum period of three years following the date of final entry recorded therein.

1.14(536A) Loan record. Records for loans made under the Iowa industrial loan law shall be kept separate from other types of business conducted in the office of the licensee.

1.15(536A) Exceptions. Each licensee shall keep the following records in its place of business, except that combination forms and special office systems may be used in lieu thereof if approved by the auditor of state in writing.

1.15(1) Loan register.

a. The loan register shall contain the original entry and shall show for every loan the loan number, date of loan, name of borrower and amount of note.

b. The loan register shall be kept numerically by loan number in the order made.

1.15(2) Account ledger cards.

a. An individual account ledger card shall be kept for each account and shall show at least the loan number, name and address of the borrower, date of loan, date of first payment, date of final payment, terms of repayment, face amount of note, cash advanced to borrower, cash advanced to pay balance of previous industrial loan, interest or discount charge, service charge, appraisal fee, attorney fee, fee paid or to be paid to a public official for recording or filing a mortgage or for satisfying a judgment or lien on any real or personal property securing the loan, type and cost of credit life insurance, type and cost

of health and accident insurance and type and cost of other insurance; except that if only one type of credit life or health and accident insurance is being provided by the licensee only the cost for each need be shown.

b. In the case of precharging or precollecting of releasing fees, there shall be evidence of the amount charged or collected posted to the account ledger card and carried forward on all future account ledger cards until the amount is disbursed.

c. All payments shall be credited upon the account ledger card as of the same day they are received.

d. The account ledger card shall show the amount and date of each payment applied to the note, the unpaid balance of the note after applying such payment and the date and amount of any additional charge collected for delinquency or deferment.

e. If payment is made through the proceeds of an insurance claim or the sale of security, it shall be so designated.

f. No erasures whatsoever may be made in the payment section of any account ledger. In case of error, a line shall be drawn in ink through the improper entry and the correct entry made on the following line.

g. When a loan is prepaid in full, the account ledger card shall show the date of prepayment, the amount paid to discharge the loan, the amount of the interest or discount rebate and any deduction from the rebate for previously earned but uncollected delinquency charges.

h. When a loan is prepaid in full, by the borrower, any refund of the cost of credit life insurance, health and accident insurance or other insurance shall be recorded on the card.

i. Paid-in-full or renewed account ledger cards must be retained as a separate group until released by the auditor of state; except that no licensee shall be required to keep a card in this group for more than three years following the date of final payment.

1.15(3) Original paper file.

a. A separate file, envelope or folder shall be maintained for each borrower or loan account.

b. Such file shall contain all papers relating to the borrower or his loan with the exception of the promissory note which may be kept in a separate promissory note file. Exceptions to the above requirement are the note and security instrument which have so been sold, pledged or assigned as collateral security and any papers in the custody of a court or agent for collection.

c. All instruments evidencing or securing a loan must bear the loan number.

d. No instrument or part thereof shall be left blank for completion in the absence of signature by the borrower or borrowers.

1.15(4) Promissory note file. If the promissory notes are not kept in the file of original

papers and have not been sold, pledged or assigned as collateral security or placed in the custody of a court or agent for collection, then they must be kept in a promissory note file.

1.16(536A) Insurance premium refunds. If the policy is surrendered for cancellation by the borrower, the refund or credit of an amount paid by the debtor for insurance shall be not less than the pro rata unearned gross premium in the following cases:

1.16(1) Decreasing term. All decreasing term credit life insurance or credit accident and sickness insurance except that payable by a single premium.

1.16(2) Level term. All level term credit life insurance.

1.17(536A) Single premium insurance refund. If the policy is surrendered for cancellation by the borrower, the refund or credit of an amount paid by the debtor for insurance, in the case of decreasing term credit life insurance or of credit accident and sickness insurance upon which a single premium is paid in advance, shall be not less than the amount computed by the "Direct Ratio Method," commonly known as the "Rule of 78's."

1.18(536A) Property insurance refunds. If the policy is surrendered for cancellation by the borrower, the refund or credit of an amount paid by the debtor for property insurance shall be not less than the amount required by the short rate refund table approved by and on file in the office of the Iowa commissioner of insurance.

1.19(536A) Refund exception. A premium refund or credit need not be made if the amount thereof is less than one dollar per type of insurance.

1.20(536A) Fees. All fees paid by a borrower to a licensee for recording or filing a chattel mortgage or security agreement or for satisfying a judgment or lien on any real or personal property securing a loan, shall be evidenced by a receipt or other satisfactory evidence of payment.

1.21(536A) Appraisal fees. All fees paid by a borrower to a licensee for actual expenses incurred by the licensee in appraising real or personal property offered by the borrower as security for a loan shall be evidenced by a written explanation of how the fee was computed. The following are acceptable as expenses incurred by a licensee in making appraisals:

1.21(1) The actual cost of transportation or a reasonable mileage cost estimate to and from the place where the appraisal is to be made.

1.21(2) The actual cost of the appraiser's time.

1.21(3) Meals and, if it is necessary for the appraiser to remain out of town overnight, lodging.

1.22(536A) Independent appraiser. The licensee, may choose to have the appraisal performed by an independent appraiser. In this case, the cost of the appraisal would be the amount charged by the independent appraiser as evidenced by his statement. The appraiser's statement shall be retained.

1.23(536A) Abstracting and opinion charges. A licensee may collect from a borrower the actual cost incurred in the continuation of an abstract and an attorney's opinion as to the title to real property securing a loan. The charge shall be evidenced by a statement rendered by the individual or firm performing the service.

1.24(536A) Prepayment. Refunds for prepayment in full shall be computed by the "Direct Ratio Method," commonly referred to as the "Rule of 78's" method, based on the number of full months the loan is prepaid in full.

1.25(536A) Restrictions. No person other than an actual or bona fide employee of the lender or the principal borrower shall obtain the signature of one or more of the principal borrowers outside the loan office except under unusual circumstances or where the loan is made by mail.

1.26(536A) Penalty. It shall be the responsibility of each licensee to see that all management personnel are familiar with the Iowa industrial loan law and all rules and regulations promulgated thereto.

The foregoing rules are intended to implement chapter 536A of the Code.

[Filed October 8, 1965; amended December 13, 1966, November 15, 1967]

SAVINGS AND LOAN DIVISION

CHAPTER 2 INCORPORATION AND ORGANIZATION

2.1(534) Board resolution to file application. Prior to an association amending its articles of incorporation and the bylaws for the purpose of establishing a branch office, the board of directors of the association will, by resolution, authorize the filing of an application for permission to establish a branch office along with the supporting information required by such application. The prescribed form of application and an outline of information required in support thereof may be obtained by request from the office of the Auditor of State, Supervisor of Savings and Loan Associations, State Capitol Building, Des Moines, Iowa.

2.2(534) Eligibility. No application will be considered if, at the date on which it is filed:

2.2(1) The location of the proposed branch office is outside the "regular lending area" as defined in section 534.5 of the Code, with the further stipulation that branch offices outside of the state of Iowa will not be considered;

2.2(2) The association has not been in operation for at least three years;

2.2(3) The association has on file any other application for permission to establish a branch office with respect to which action by the supervisor, auditor of state or the state executive council is pending;

2.2(4) The association has received approval for another branch office and such office has not yet opened;

2.2(5) The association does not submit assurance that the proposed branch office will open within eighteen months of the date of approval of amendment to the articles and bylaws by the state executive council.

2.3(534) Application and supporting data. In support of the requirements of the Code, the association will supply such data as are outlined in the "Application for Permission to Establish a Branch Office." Particular emphasis is placed on trend data concerning the proposed branch service area. Appropriate to this are economic surveys of the area, whether compiled primarily for the applicant or for other local groups. Also required are an estimate of the annual income and expenses of the proposed branch office, the annual business to be transacted by it, and a statement of the functions to be performed at such office and of the personnel and office facilities to be provided for the operation of the office.

2.4(534) Annual budget. The application for permission to branch must be accompanied by a proposed annual budget of the association. The budget is for the confidential use of the supervisor and the auditor of state and is not to be open to inspection by the public.

2.5(534) Evaluation of applications. A certified copy of the association's board of directors' resolution authorizing application, the completed "Application for Permission to Establish a Branch Office" and the proposed annual budget will be submitted by the association to the office of the auditor of state, savings and loan division. The auditor of state and the supervisor are charged with the preliminary evaluation of the application and supporting data and may request further information as may be desirable in particular cases. They will have thirty days from date of receipt of all required or requested information in which to evaluate the application.

2.6(534) Amendment of articles and bylaws. If, upon evaluation of the information presented, the auditor of state and the supervisor approve the application, they will give written notice to the association to proceed with amendment of the articles of incorporation and

bylaws of the association. The articles are to be amended as provided in section 534.3(3) "g" of the Code and the bylaws by resolution of the board of directors. Both amendments are subject to approval of the supervisor as to form and must be approved by the state executive council. The amendments must indicate the location for the specific branch office intended. An amendment cannot be made giving the association broad powers to branch.

Upon approval of the members of the amendment to the articles of incorporation and upon approval of the amendment to the bylaws by the board of directors, four certified copies of each of the amendments shall be filed with the supervisor.

2.7(534) Published notice of branch. If, upon receipt of the amendments, the supervisor approves them as to form he shall give the association written notification to publish the following notice:

NOTICE OF FILING AMENDMENTS TO THE
ARTICLES OF INCORPORATION AND BYLAWS
APPLICATION FOR THE PURPOSE OF
ESTABLISHING A BRANCH OFFICE

Notice is hereby given that, pursuant to the provisions of section 534.3 of the Code of Iowa and the rules of the office of Auditor of State, Savings and Loan Division, the Savings and Loan Association,, Iowa has filed with the Auditor of State, amendments to the articles of incorporation and bylaws of the association for submission to the state executive council. Said amendments provide for the establishment of a branch office at, or in the immediate vicinity of,, Iowa. The amendments along with a completed "Application for Permission to Establish a Branch Office" have been delivered to the office of Auditor of State, located in the State Capitol Building, Des Moines, Iowa. Any person may file communications in favor or in protest of said amendments and application at the office of auditor of state within twenty days after the date of this publication. The amendments and completed application, together with all communications received in favor or in protest thereof, are available for inspection by interested persons at the aforesaid office.

.....Savings and Loan Association
....., Iowa.

The association shall publish the notice in a newspaper of general circulation in the community in which the branch office is to be located within fifteen days of the supervisor's notification to do so. A copy of the notice accompanied by a publisher's affidavit will be furnished the supervisor by the association immediately after publication.

2.8(534) Submission of amendments. Upon receipt of the affidavit of publication of notice and following the twenty-day period for communications allowed in the notice, the supervisor will deliver the amendments to the audi-

tor of state for presentation to the state executive council. Processing of the amendments will be as provided in section 534.3 of the Code. Approval by the state executive council of the amendments will constitute approval of the proposed branch office. If the state executive council disapproves the amendments, appeal may be made as provided in section 534.3(3)"b" of the Code.

[Filed September 15, 1966]

CHAPTER 3

SAVINGS LIABILITY—DIVIDENDS

3.1(534) Classes of savings. In addition to regular savings share accounts, an association may, if its articles of incorporation permit and by resolution of its board of directors, classify savings according to the character, amount or duration thereof, or regularity of additions thereto. For this purpose, the classifications are defined.

3.1(1) Bonus accounts. Under the bonus arrangement, the association may agree, by issuance of a bonus security certificate, to pay an extra dividend at a specified rate in addition to the regular dividend rate.

Bonus accounts may be:

Fixed balance accounts of \$1,000 or a greater amount which is an integral multiple of \$1,000, maturing in thirty-six months, or

Accounts on a monthly payment basis, such monthly payments to be set forth in a bonus agreement, for a period of not less than thirty-six months nor more than ninety-six months.

a. Regular dividends shall be distributed as of the normal distribution dates and the bonus amount upon completion of the agreed upon maturity. In the event that the account is withdrawn prior to the maturity date specified, no bonus may be paid nor may a penalty be assessed. The association shall, on each regular dividend payment date, make appropriate debits and credits to a "Reserve for Bonus" which shall be maintained as long as bonus accounts are outstanding.

b. The bonus security form to be used shall be submitted to the supervisor for approval prior to initiation of any bonus plan.

c. Bonus certificates, issued under any plan prior to the effective date of this regulation, must be redeemed upon their date of maturity, which date shall, in no event, be later than July 1, 1968. Such certificates may be replaced by a regular savings share account or a plan conforming to one of the classes of savings set forth in this rule.

3.1(2) Variable term certificates. The association may offer certificates in either single payment plan, bonus plan, variable rate plan, or otherwise for from three months to ten years so long as any particular such certificate is within the limitations imposed by

the Federal Home Loan Bank System existing as of January 26, 1970 and so long as the same are approved by the savings and loan division, auditor of state. Such certificate plans shall be authorized retroactive to January 21, 1970.

3.1(3) Ninety-day passbook accounts. Associations may offer passbook accounts whereby a higher rate of return on investment may be offered than is offered on regular passbook accounts, in return for requiring a minimum of ninety days' notice prior to any withdrawal. Such ninety-day notice passbook accounts shall be within the limitations imposed by the Federal Home Loan Bank System existing as of January 26, 1970 and shall be approved by the savings and loan division, auditor of state. Such accounts shall be authorized retroactive to January 21, 1970.

3.1(4) Special housing certificate. The association may offer a "special housing certificate", the basic features of which are as follows:

1. Maximum rate—six percent.
2. Minimum amount—\$10,000.
3. Term—minimum two years; maximum five years. Automatically renewable, if desired.
4. Eligible investors—only those savers who had accounts with a qualifying balance as of December 15, 1969; i.e., at least \$10,000, including earnings credited for that dividend period.
5. Maximum amount of certificates which can be issued—no more than twenty percent of savings capital as of November 30, 1969, but no more than ten percent may mature during the first six months of 1972, and five percent during any subsequent six-month period.
6. Period during which such certificates can be issued—December 19, 1969 to July 31, 1970.
7. Existing certificate forms may be adapted by use of a penalty clause which may be added as a sticker or stamp and which shall provide for forfeiture of earnings for emergency withdrawal or withdrawal prior to maturity, as the case may be, of not less than three months' earnings, or as provided by regulations of the Federal Home Loan Bank System in existence on the date of filing this rule in the office of the secretary of state.
8. It is intended that this special certificate be limited generally to the similar certificate authorized for federally chartered associations.
9. Certificates issued under these rules may be issued retroactively to January 1, 1970.

3.2(534) Distribution of earnings. An association may, by resolution of its board of directors, provide for the distribution of earnings on amounts withdrawn from bonus accounts and variable rate accounts between the dates on which earnings are regularly distributed, provided that earnings on such withdrawals shall be for only that portion of the period during which the amount remained in the association and that the rate, exclusive

of bonus or extra rate, is not in excess of the regular rate for that period.

3.3(534) Ninety-day notice accounts. The term "notice account" means any form of withdrawable account evidenced by an account book containing a requirement that the holder of the account will give the association written notice of at least ninety days prior to making each withdrawal from such account, except as otherwise provided in this paragraph. The association may provide that such notice prior to withdrawal will not be required at the end of a distribution period or within ten days thereafter in connection with the withdrawal of funds which have remained in such account for at least ninety days. In an emergency where it is necessary to prevent great hardship to the holder of such an account, an association may pay without such notice such account or the portion thereof necessary to meet such emergency: Provided, that before making such payment, the holder of such account shall sign an application describing fully the circumstances constituting the emergency which is deemed to justify the payment of the withdrawal, which application shall be approved by an officer of the association who shall certify that, to the best of his knowledge and belief, the statements in such application are true. Where an emergency withdrawal of such an account is paid, the holder of such account shall not be entitled to receive accrued and unpaid earnings for the period of time the funds remained in the association since the last date as of which the association regularly distributed earnings on its savings accounts.

This amendment is intended to implement sections 534.10 and 534.42 of the Code.

[Filed September 14, 1967; amended June 28, 1968; July 9, 1968; May 13, 1969]

CHAPTER 4 MUTUAL DEPOSITS

4.1(534) Mutual deposit association.

4.1(1) General approval. A state chartered association may elect to operate in a manner similar to federally chartered savings and loan associations as a "mutual deposit" association or institution. Such an election shall enable such institution or association to avail itself of the various terminology and powers authorized for "Mutual deposit" savings associations or institutions as authorized by federal law and limited by rules and regulations of the Federal Home Loan Bank System or the Federal Savings and Loan Insurance Corporation from time to time, and as implemented and approved by the rules of the supervisor of savings and loan associations.

4.1(2) Procedure to elect. In order to elect to become such a "mutual deposit association or institution", a state chartered association

shall by action of its members at a regular annual meeting or a specially called meeting for that purpose amend its articles of incorporation so as to convert to a mutual deposit type institution or association by adopting Articles of Incorporation which are substantially similar to those which are attached hereto as addendum "A" and by this reference made a part hereof, and especially which shall contain the provisions of Articles 5, 7, 17, 18, 20, 21, 22 and 23 of said Model Articles of Incorporation. The associations shall further obtain the formal approval of the supervisor and the executive council of the state of Iowa.

4.1(3) Such associations as elect to become mutual deposit type associations or institutions shall also continue to have the rights and powers and be generally regulated and limited by the provisions of chapter 534, Code of Iowa as amended from time to time, as though they had not converted, excepting where federal regulations or rules of this office specifically adopted for "mutual deposit" type associations may limit same.

4.2(534) Fixed-rate, fixed-term savings deposit accounts.

4.2(1) General approval. A state-chartered association which in accordance with state law, may accept accounts bearing a definite rate of return for fixed periods of time (hereinafter referred to as "fixed-rate, fixed-term accounts") and whose board of directors has adopted a resolution providing for the issuance of such fixed-rate, fixed-term accounts may, subject to the limitations contained in 4.2(2), and to the disclosure provisions contained in 4.2(3), issue certificates evidencing such fixed-rate, fixed-term accounts in such form as the board of directors of the institution may determine.

4.2(2) Limitations. In issuing certificates evidencing fixed-rate, fixed-term accounts pursuant to the approval contained in 4.2(1), no insured institution shall:

a. Provide for any forfeiture for breach of condition on the part of any holder, other than loss of interest, or partial loss thereof, for the term of the fixed-rate, fixed-term account or other specified time period;

b. Issue any negotiable form of certificate evidencing a fixed-rate, fixed-term account;

c. Deny any member the opportunity to invest at the same rate offered to any other member at that time on the same classification of fixed-rate, fixed-term account;

d. Accept any fixed-rate, fixed-term account for a term of less than 180 days or more than five years or in an amount less than \$1,000; provided, that any fixed-rate, fixed-term account may be renewed, at the option of the institution, for successive periods not exceeding five years for each renewal;

e. Provide for withdrawal from any fixed-rate, fixed-term account prior to the expiration of the fixed-term, except as provided in 4.2(4);

f. Issue any fixed-rate, fixed-term account which is subject to redemption; or

g. Issue any form of certificate evidencing a fixed-rate, fixed-term account unless the institution has first (1) obtained a written opinion by its legal counsel that such form of certificate complies with the requirements of applicable law and regulations and the institution's articles of incorporation and bylaws, which opinion shall be retained by the institution so long as it continues to issue certificates in such form, and (2) submitted a copy of such form of certificate, together with a copy of such legal opinion, to the supervisor of savings and loans associations, officer of the auditor of state.

4.2(3) Disclosure. Each certificate evidencing a fixed-rate, fixed-term account accepted pursuant to the approval contained in 4.2(1) shall include in its provisions and display in easily read type:

a. The rate of interest to be paid and the dates or frequency at which interest is payable;

b. The amount of the fixed-rate, fixed-term account;

c. The term of the fixed-rate, fixed-term account;

d. The penalty or penalties imposed for withdrawal prior to completion of the fixed term or renewal;

e. Any provisions relating to renewal at the conclusion of the fixed term;

f. Any provisions relating to the interest to be paid after the conclusion of a fixed term or renewal; and

g. A provision converting the fixed-rate, fixed-term account at the conclusion of a fixed term or renewal to the status of an account accepted for an indefinite period of time.

4.2(4) Withdrawal prior to expiration of term. A certificate issued by an insured institution may provide that, in an emergency where it is necessary to prevent great hardship to the holder of a fixed-rate, fixed-term account, the institution may pay, prior to the expiration of the term, such fixed-rate, fixed-term account or the portion thereof necessary to meet such emergency; provided, that before such payment may be made, the holder must sign an application describing fully the circumstances constituting the emergency which is deemed to justify the payment of the withdrawal, which application shall be (1) approved by an officer of the institution who shall certify that, to the best of his knowledge and belief, the statements in such application are true and (2) retained by the institution for a period of not less than two years; and that, in the event of emergency withdrawal as provided in this paragraph, the holder shall forfeit accrued and unpaid interest for a period of not less than three months on the amount withdrawn if an amount equal to the amount withdrawn has been on deposit three months or more, and the holder shall forfeit all accrued and unpaid interest on the amount withdrawn

if an amount equal to the amount withdrawn has been on deposit less than three months. In the case of emergency withdrawal of only a portion of any such fixed-rate, fixed-term account, the certificate evidencing such fixed-rate, fixed-term account shall be canceled, and, if the minimum balance requirements of this section continue to be met, a new certificate shall be issued for the remaining portion of the fixed-rate, fixed-term account with the same term, rate, and dates as the original fixed-rate, fixed-term account.

4.3(534) Distribution of earnings at variable rates.

4.3(1) General. The board of directors of a state-chartered association which has adopted the approved "Articles of Incorporation", after having determined the rate at which earnings will be distributed on its savings accounts for the dividend period, hereinafter referred to as the regular rate may provide for the distribution of earnings for that dividend period (1) on savings accounts which are withdrawn during the dividend period, and on which dividends are paid to the date of withdrawal, at a rate lower than the regular rate and (2) on savings accounts which meet eligibility requirements fixed by the board of directors pursuant to 4.3(2) and such additional requirements as the board of directors may impose, at a rate or rates higher than the regular rate. However, such authority will not be available until specifically approved in writing by the supervisor.

4.3(2) Eligibility requirements. The board of directors may, by resolution, provide for the distribution of earnings at a rate or rates higher than the regular rate only on savings accounts which meet the minimum requirements fixed by the board of directors pursuant to paragraphs "a", "b", "c" and "d" of this subrule and such additional requirements as the board of directors may impose.

a. Accounts evidenced by account books other than notice-account books. A savings account which is evidenced by an account book other than a notice-account book and is maintained at not less than \$1,000 for a continuous period of not less than twelve months may receive earnings at a rate higher than the "regular rate", but not in excess of the applicable maximum rate of return as prescribed by regulations of the Federal Savings and Loan Insurance Corporation.

b. Accounts evidenced by notice-account books. A savings account which is evidenced by a notice-account book containing a requirement that the holder of the account give the association written notice of at least ninety days prior to making each withdrawal from such account, except as otherwise provided in this paragraph may receive earnings at a rate higher than the regular rate, but not in excess of the applicable rate of return as prescribed by regulations of the Federal Savings

and Loan Insurance Corporation. No association shall pay any withdrawal from an account evidenced by a notice-account book until the required notice has been given and the required notice period thereafter has expired, except as otherwise provided in this paragraph. The association may provide that such notice prior to withdrawal will not be required at the end of a dividend period or within ten days thereafter in connection with the withdrawal of funds which have remained in such account for at least ninety days. In an emergency where it is necessary to prevent great hardship to the holder of such an account, an association may pay without such notice such account or the portion thereof necessary to meet such emergency: Provided, that before making such payment, the holder of such account shall sign an application describing fully the circumstances constituting the emergency which is deemed to justify the payment of the withdrawal, which application shall be approved by an officer of the association who shall certify that, to the best of his knowledge and belief, the statements in such application are true. Where an emergency withdrawal of such an account is paid, the holder of such account shall not be entitled to receive accrued and unpaid earnings for the period of time the funds remained in the association since the last date as of which the association regularly distributed earnings on its savings accounts.

c. Accounts evidenced by separate certificates. A savings account which is evidenced by a separate certificate may receive earnings on the amount of such certificate at a rate higher than the "regular rate", but not in excess of the applicable maximum rate of return as prescribed by regulations of the Federal Savings and Loan Insurance Corporation, if such account is maintained at not less than \$1,000 for a continuous period of not less than six months nor more than twelve months, commencing on the date of such certificate. If such savings account is evidenced by more than one separate certificate, the provisions of this paragraph shall be as fully applicable to each such certificate as if each such certificate evidenced a separate savings account.

d. Split rates.

(1) *General.* For any dividend period for which the regular rate is less than the applicable maximum rate of return as prescribed by the Federal Savings and Loan Insurance Corporation, the board of directors may, by resolution determine to distribute earnings at a rate higher than the "regular rate" on the balance of any account in excess of such minimum balance as shall be fixed by the board of directors, which minimum balance shall not be less than \$200.00 and at a rate or rates in excess of such higher rate on such higher balance or balances as the board of directors may prescribe, but no rate so determined shall be in excess of the applicable maximum rate as prescribed by the Federal Savings and Loan Insurance Corporation.

(2) *Account books and certificates.* Each certificate, whether printed in an account book or as a separate certificate evidencing an account issued pursuant to this paragraph shall contain the following prescribed language: "Earnings are distributable at such rate or rates as determined by the board of directors".

These rules are intended to implement section 534.19(18) of the Code.

[Filed August 12, 1969]

ADDENDUM A
MODEL ARTICLE OF INCORPORATION
FOR
.....SAVINGS AND LOAN ASSOCIATION
(A Mutual Deposit Institution)

Section 1. Name and Place of Business. The name of this association shall be Savings and Loan Association, a mutual deposit institution, and its principal place of business shall be in the City of in the County of and the State of Iowa. Any security instruments to which the association is a party shall identify it as a "mutual deposit institution".

Section 2. Seal. This association may have a seal consisting of two concentric circles with the words "..... Savings and Loan Association, a mutual deposit institution" between such circles and the word "Incorporated" in the center, and, under it, the date of Incorporation. An impression of such seal if used by the association shall be necessary on all instruments conveying title to real estate, but shall not be necessary on any other instrument.

Section 3. Duration. This association shall continue and exist, perpetually, unless sooner dissolved in the manner authorized and provided for by the laws of Iowa.

Section 4. Objects. This association is formed to operate and do business as a savings and loan association, a mutual deposit institution. Its objects and purposes are to promote and encourage thrift and home ownership by providing a convenient and safe co-operative method for savings and accumulating money and investing such money in loans to its members on the security of first mortgages and to do such other business as shall be authorized by the laws of Iowa.

MEMBERSHIP

Section 5. Membership. Any person, firm, corporation, and other legal entity may become a member of this association: (1) By owning a savings account or a savings deposit account. (2) By becoming a borrower on a mortgage loan or assuming such a loan. (3) By purchasing on contract from the association or, (4) By any other method authorized by Chapter 534, Code of Iowa.

MEMBERS' MEETINGS—
QUORUM — VOTING RIGHTS

Section 6. Members' Voting Rights. At all members' meetings, each member, including borrowing members, shall have one vote in

person or by proxy for each one hundred dollars paid in and credited on his savings deposit account or savings deposits. Such voting shall be as prescribed by Chapter 534, Code of Iowa.

Section 7. Fines, Fees and Penalties. Except for borrowers, the institution shall not directly or indirectly charge any membership, admission, repurchase, withdrawal, or any fee or sum of money for the privilege of becoming, remaining or ceasing to be a holder of a savings account or deposit.

Section 8. Members' Meetings—Regular. A regular annual meeting of the members shall be held on the Wednesday in January of each year at the office of the association beginning with the hour of M. Notice of such meeting shall be given as prescribed by Chapter 534, Code of Iowa.

Section 9. Special Meeting. Special meetings of members may be held at any time on call of the President or by written call signed by a majority of the directors. Notice of any special meeting shall be published at least once in a newspaper of general circulation published in the city of the principal place of business of this association not less than ten days and not more than twenty days before the date of such special meeting. Such notice must in general terms state what is to be considered and acted on at such special meeting.

Section 10. Quorum—Rules of Order. Not less than ten members holding or representing not less than \$..... in a savings account or in a savings deposit account in person or by proxy shall constitute a quorum for transaction of business at any members' meeting. Roberts' Rules of Order shall govern in all such meetings.

GENERAL MANAGEMENT — DIRECTORS
—OFFICERS

Section 11. Directors — How Elected — Quorum — Qualifications. The business of the association shall be managed by a board of directors of not less than five or more than fifteen as determined and elected by ballot from among the members by a plurality of the votes of the members present in person or by proxy. If authorized by vote of the members, the directors may elect all directors. At all times at least two-thirds of the directors shall be bona fide residents of this state.

In order to qualify as a director, a member of this association must hold a savings account or a savings deposit account in the amount of at least two hundred dollars; provided that, if the assets of the association exceed five hundred thousand dollars, such member must hold a savings deposit account in the amount of at least five hundred dollars; and provided further, if the assets exceed two and one-half million dollars, his savings account or savings deposits must be at least one thousand dollars. A director shall automatically cease to be a director when he ceases to be a member, or when the net equity above savings deposit account loans of the member

aggregates less than the minimum required to be eligible for election as a director, provided no action of the board of directors shall be invalidated through the participation of such director in such action.

At the first annual meeting, the directors shall by majority vote be divided into three classes of as nearly equal numbers as possible. The term of office of directors of the first class shall expire at the annual meeting next after the first election; of the second class, one year thereafter; and of the third class, two years thereafter; and at each annual election thereafter directors shall be chosen for a full term of three years to succeed those whose terms expire.

The number of directors within the limits hereabove specified may be subsequently increased only by vote of the members.

If the members fail to elect a director to fill each vacancy created by any such increase, the directors may fill such vacancy by electing a director to serve until the next annual meeting of the members, at which time a director shall be elected to fill the vacancy for the unexpired term for the class of director in which such vacancy exists.

Whenever under the provisions hereof the number of directors is changed and vacancies caused by such change are filled, the directors so elected shall be classified in accordance with the provisions hereof, so that each of the three classes shall always contain numbers as nearly equal as possible.

Any vacancy among directors, not so filled by the members, may be filled by a majority vote of the remaining directors, though less than a quorum, by electing a director to serve until the next annual meeting of the members, at which time a director shall be elected to fill the vacancy for the unexpired term for the class of director in which such vacancy exists. In event of a vacancy on the board of directors from any cause, the remaining directors shall have full power and authority to continue direction of the association until such vacancy is filled.

Section 12. Executive Committee. The Board of Directors may elect from their number an Executive Committee consisting of three or more directors to which it may refer any and all matters requiring consideration and action between board meetings. The Board of Directors may also elect such other committees as it may deem necessary.

Section 13. Officers — How Elected — General Duties. The Board of Directors shall immediately after each annual members' meeting assemble and elect, either from or outside of its own membership, a President, one or more Vice Presidents, a Secretary, Counsel, and such additional officers as it shall deem necessary. The Board of Directors shall also have power to fill vacancies in such offices. All salaries, including compensation for directors, shall be fixed by the Board of Directors. One person may hold any two offices. The officers shall be responsible for the operation

and management of the association under the general management and direction of the Board of Directors, and within the provisions of these articles of incorporation, the bylaws adopted by the Board consistent herewith and the statutes of the State of Iowa. Officers shall be elected for terms not exceeding one year at a time or for such shorter terms as the Board of Directors may deem advisable.

Section 14. Present Directors. The following shall constitute its Board of Directors for the term indicated:

Name	Address	Term Expires
Section 15. Present	Officers.	Until the
next annual members' meeting,	the following	shall be the officers of this association:
President	of	
Vice President	of	
Secretary	of	
Treasurer	of	
Counsel	of	

Section 16. Execution of Conveyances and Releases. The President or the Vice President, together with the Secretary or the Assistant Secretary, if any, or such other officers as the Board of Directors may approve, shall have authority to execute any instrument affecting the title to real estate and the seal of the association shall be impressed upon such instrument, if used by the association. Either the President, Secretary or the Vice President alone or such other officer as the Board shall expressly authorize, shall have authority to release mortgages when they are settled in full and may make such releases on the margin of the record without seal.

SAVINGS DEPOSITS

Section 17. Savings Deposits. The institution shall not accept savings accounts other than savings deposits but savings accounts existing in this institution on when it became a deposit institution shall remain savings accounts unless and until they are exchanged for savings deposits. Any right outstanding at the time when this institution became a deposit institution to receive a savings account from the institution in exchange for a previously issued savings account shall thereafter be a right to receive, at the option of the holder of such right, either a savings account or a corresponding savings deposit.

Section 18. Priority. In the event of voluntary or involuntary liquidation, dissolution, or winding up of this institution or in the event of any other situation in which the priority of such savings deposits is in controversy, all savings deposits shall, to the extent of their withdrawal value, have the same priority as the claims of general creditors of the institution not having priority (other than any priority arising or resulting from consensual subordination) over other general creditors of this institution, and, in addition, savings deposits shall have the same right to share in the remaining assets of the institution as if they were savings accounts. If, in any such event,

there are outstanding in this institution any one or more insured accounts which are not savings deposits, such insured accounts (regardless of whether there are or are not outstanding in this institution any one or more such savings deposits) shall, to the extent of their withdrawal value, have the same priority as if they were savings deposits. As used in this section, the term insured account has the same meaning as defined in the rules and regulations for insurance of accounts of the Federal Savings and Loan Insurance Corporation.

Section 19. Reserve for Contingencies. As of June thirtieth and December thirty-first of each year the Board of Directors shall transfer and credit to a general reserve account an amount equivalent to not less than two per cent of the net earnings of the association for the preceding six months, called the "accounting period", such transfers to be made at the end of each six months' accounting period, until such general reserve account is equal to at least five per cent of the total amount of savings account or savings deposit account. If at any time thereafter such general reserve account shall on account of losses be reduced to less than five per cent of the amount of savings accounts or savings deposit accounts, such transfer and credits thereto shall be resumed and continued until such reserve is again equal to at least five per cent of the total amount of savings accounts or savings deposit accounts. The reserve account so established shall at all times be maintained and used for the sole purpose of absorbing losses incurred by the association and for no other purposes. The association may establish such other and additional special reserves as may be ordered by its Board of Directors.

Section 20. Types of Savings Deposits. Savings accounts or savings deposit accounts may be opened and held solely and absolutely in his own right by, or in trust for any person, including an adult or minor individual, male or female, single or married, a partnership, association, fiduciary corporation, or political subdivision or public or government unit or any other corporation or legal entity. Savings accounts or savings deposit accounts shall be represented only by the account of each savings account or savings deposit account holder on the books of the association, and shall be transferable only by the transferee and upon acceptance of the transferee as a member upon terms approved by the board of directors. The association may treat the holder of record of a savings account or savings deposit account as the owner thereof for all purposes without being affected by any notice to the contrary unless the association has acknowledged in writing the notice of a pledge of such savings account or savings deposit account.

An account book may be issued to each savings account or savings deposit account holder on the books of the association and such account book shall, if issued, contain a form of membership certificate to indicate

the withdrawal value of the savings share account. A separate certificate for a savings account or a savings deposit account may be issued in lieu of an account book in form to be approved by the supervisor.

The following types of savings deposits may be accepted in the discretion of the board of directors:

1. Full-Paid Savings Deposits, when the full value thereof is paid at the time of issuance.

2. Installment Savings Deposits, on which payments shall be made in the amounts and at the times fixed by the board of directors.

3. Optional Savings Deposits, on which, after the first payment has been made, the account holder may pay any amount at any time.

4. Short-Term Club Savings Deposits, on which payments may be made at the option of the account holder to be withdrawn within months. (Not to exceed 24 months.)

5. Bonus Savings Deposits, which are accepted pursuant to a bonus plan approved by both the Supervisor of Savings and Loan Associations and the Federal Savings and Loan Insurance Corporation if the savings and loan is insured.

6. Single Payment Savings Deposits, when the full face value thereof is paid at the time of acceptance and which are maintained in such amount and for such periods of time as may be approved by both the Supervisor of Savings and Loan Associations and the Federal Savings and Loan Insurance Corporation, if the savings and loan is insured.

7. Any other type of savings deposit, the acceptance of which has been approved by both the State Supervisor and the Federal Savings and Loan Insurance Corporation.

Section 21. Distribution of Earnings. Regular earnings on all types of savings deposits and savings accounts shall be declared semiannually as of the last business day of _____ and as of the last business day of _____ by the board of directors out of the surplus of the association. Regular earnings may also be declared by the board of directors as of other dates, but not more frequently than quarterly, out of the surplus. Earnings may be declared payable within three business days of the end of a distribution period. For the purpose of calculating earnings, any withdrawal, either total or partial, made during the last 3 business days of a distribution period may be considered as having been made as of the last business day of the period.

The association shall not be required to credit earnings to savings deposits or savings accounts with a balance of less than _____ dollars (\$.....)* or to savings deposits or savings accounts issued under a Christmas club, vacation club, or other similar plan whereby they shall automatically be listed *Note: The dollar amount to be inserted may not exceed fifty dollars.

for withdrawal no later than _____ months (insert figure not to exceed 24 months) after the date of issuance. The board of directors may fix a lesser amount than such minimum with respect to the distribution of earnings on savings deposits and savings accounts established in connection with a program offered to children for the encouragement of thrift.

The date of investment shall be the date of the actual receipt by the institution of a payment on a savings deposit or savings account except that the board of directors may fix a date, which shall not be later than the 20th day of the month, for determining the date of investment: Provided, however, that the board of directors may permit investments of \$100 or more to receive earnings from the date of investment, in any event. Payments, affected by such determination date, received by the institution on or before such determination date, shall receive earnings as if invested on the first of the month during which such payment was made. Payments, affected by such determination date, received subsequent to such determination date, shall receive earnings as if invested on the first of the month next succeeding the month during which such payment was made.

The board of directors may classify savings deposits and savings accounts as to amount and term, and may determine to pay different rates of earnings with respect to savings deposits and savings accounts in different classes. All accounts of the same type and class shall be paid the same rate of earnings.

Section 22. Withdrawal. Any member may withdraw his unpledged savings deposit or savings account, in whole or in part, in accordance with 534.12(2) of the Code of Iowa, 1966, as now or hereafter amended. The institution may require at least 30 days' written notice of intention to withdraw.

Section 23. Association's Redemption Rights. At any time funds are on hand for the purpose, the board of directors may determine to redeem by lot or otherwise, in its discretion, all or part of the institution's savings deposits and savings accounts on an earnings date by giving 30 days' notice by registered or certified mail to each affected holder. Upon receipt of notice of redemption, the savings deposit book, certificate, or other evidence of the account shall then be surrendered for cancellation and payment. If on or before the redemption date the funds necessary for redemption have been set aside so as to be and continue to be available therefore, earnings on savings deposits and savings accounts called for redemption shall cease to accrue from and after the earnings date specified as the redemption date.

Section 24. Insurance of Accounts. If authorized by the Board of Directors this association may insure its savings accounts or savings deposits, with the Federal Savings and Loan Insurance Corporation, provided, however, that after such insurance has become effective it shall not be discounted or ter-

minated except upon a majority vote of the members at a meeting called for that purpose by written notice disclosing the intention to consider the termination of such insurance mailed to each member at his last address as recorded on the books of the association at least thirty days before such meeting. Upon termination of insurance, all members shall be notified in writing. In case such meeting votes to terminate the insurance the association shall within ten days thereafter mail to each of its insured members at his last known address as recorded on the books of the association a copy of its notice to the Insurance Corporation of action to terminate its insurance.

INVESTMENTS—POWERS—LOANS

Section 25. Investments. This association shall have power to invest in securities and real estate as follows: In securities without limit, in obligations of, or guaranteed as to principal and interest by, the United States or in this state; in stock of a federal home loan bank of which it is eligible to be a member, and in any obligation or consolidated obligation of any federal home loan bank or banks; in stock or obligations of the federal savings and loan insurance corporation; in stock or obligations of a national mortgage association or "Ginney Mae" or any successor or successors thereto; in demand, time or savings deposits with any bank or trust company the deposits of which are insured by the federal deposit insurance corporation; in stock or obligations of any corporation or agency of the United States or this state, or in deposits therewith to the extent that such corporation or agency assists in furthering or facilitating the association's purposes or powers; in savings accounts of any association operating under the provisions of Chapter 534 and of any federal savings and loan association; in bonds, notes, or other evidence of indebtedness which are general obligations of any city, town, village, county, school district, or other municipal or political subdivision of this state.

Also, in real estate purchased at sheriff's sale or at any other sale, public or private, judicial or otherwise, upon which the association has a lien or claim, legal or equitable; in real estate accepted by the association in satisfaction of any obligation; in real estate purchased for sale or improvement and sale, upon contracts, at the cost of land and improvements, when such contracts are executed concurrently with or prior to such purchase, such transactions to be subject to all the limitations herein provided with respect to real estate loans; in real estate acquired by the association in exchange for real estate owned by the association; in real estate acquired by the association in connection with salvaging the value of property owned by the association; an amount not exceeding the sum of its reserves and undivided profits; in the purchase and development of real estate for the purpose of producing income or for sale or for improvement thereof and the erection of buildings

thereon for sale or rental purposes. Title to all real estate shall be taken and held in the name of the association and such title shall immediately be recorded in accordance with the law. The association shall also have authority to invest in any other investments now or hereafter authorized by law.

Section 26. General Powers. This association shall have the following general powers:

1. General corporate power. To sue and be sued, complain and defend in any court of law or equity; to purchase, acquire, hold, and convey real and personal estate consistent with its objects and powers; to mortgage, pledge, or lease any real or personal estate owned by the association and to authorize such pledgee to repledge same; to take property by gifts, devise or bequest; to have a corporate seal, which may be affixed by imprint, facsimile, or otherwise; to appoint officers, agents, and employees as its business shall require and allow them suitable compensation; to provide for life, health and casualty insurance for its officers and employees and to adopt and operate reasonable bonus plans and retirement benefits for such officers and employees to enter into payroll savings plans; to adopt and amend bylaws; to insure its accounts or savings deposits with the federal savings and loan insurance corporation and qualify as a member of a federal home loan bank; to become a member of, deal with, or make contributions to any organization to the extent that such organization assists in furthering or facilitating the association's purposes or powers and to comply with conditions of membership; to accept savings, together with such other powers as are otherwise expressly provided for in Chapter 534, Code of Iowa or are otherwise authorized by law, now or hereafter as amended.

2. Loans on Security of savings accounts or savings deposits. To make loans on the sole security of savings accounts or savings deposits. No such loans shall exceed the withdrawal value of the accounts owned or otherwise pledged for or by the borrower. No such loan shall be made when the association has applications for withdrawal which have been on file more than sixty days and not been reached for payment.

3. Mortgage loans. To make first mortgage loans on real estate under the limitations and conditions imposed elsewhere in Chapter 534, Code of Iowa, now or as hereafter amended or as otherwise authorized by law.

4. Insured and guaranteed loans. To make any loan, secured or unsecured, which is insured or guaranteed in any manner and in any amount by the United States or any instrumentality thereof or by this state or any instrumentality thereof.

5. Lending with successors in interest. In the case of loans made under subsections 2, 3 and 4 of this section, in the event the ownership of the real estate security or any part thereof becomes invested in a person other

than the party or parties originally executing the security instruments, and provided there is not an agreement in writing to the contrary, an association may, without notice to such party or parties, deal with successor or successors in interest with reference to said mortgage and the debt thereby secured in the same manner as with such party or parties, and may forbear to sue or may extend time for payment of or otherwise modify the terms of the debt secured thereby, without discharging or in any way affecting the original liability of such party or parties thereunder or upon the debt thereby secured.

6. Property Improvement Loans. To make improvement loans to home owners and other property owners for maintenance, repair, modernization, improvements and equipment of their properties, with or without security provided that no such loan without security shall exceed the maximum lending amount, interest or term prescribed by law nor exceed the maximum percentage of assets limitation set by law.

7. Power to purchase and to lend upon loans. The power to make loans shall include (a) the power to purchase loans of any type that the association may make, (b) the power to make loans upon the security of loans of any type that the association may make, and (c) the power to sell any loans of the type the association is authorized to make. Loans under (a) and (c) may be outside regular lending area if restricted to loans insured or guaranteed partially by an instrumentality of the United States or by any insurer approved by the federal home loan bank or the supervisor.

8. Participation loans. This association may participate with other lenders in the origination or purchase of an interest in loans of any type that such an association may otherwise make, provided that the other participants are instrumentalities of or corporation owned wholly or in part by the United States or this state, or are associations or corporations insured by the federal savings and loan insurance corporations or the federal deposit insurance corporation or are life insurance companies with assets in excess of one hundred million dollars, such loans to be within or without the regular lending area of the association. Such loans shall comply with rules and regulations of accounts if this association is insured at the time.

9. Servicing loans. To service mortgages subject to such regulations and restrictions as may be prescribed by the supervisor, provided such mortgages originally are made by such association and subsequently sold. The maximum principal amount of mortgages thus serviced by the association at any one time shall not exceed twenty-five per cent of the amount of the savings accounts or deposits of the association.

10. Fiscal agent. This association which is a member of a federal home loan bank shall have power to act as fiscal agent of the United

States and, when designated for the purpose by the secretary of the treasury, it shall perform under such regulations as he may prescribe all such reasonable duties as fiscal agent of the United States as he may require, and shall have power to act as agent for any United States government instrumentality. This association may also handle travelers checks and money orders.

11. Purchase of contracts. This association may buy and sell vendors' real estate contracts; provided, however, that all such contracts shall contain forfeiture provisions as provided for in Chapter six hundred fifty-six (656), Code of Iowa, and provided further that the requirements for loans as set forth in these Articles should be applicable to making and buying of such contracts, except that at the time of purchase of such vendors' contracts the association shall not purchase any such contract for more than ninety per cent of the value of the real estate therein described appraised as required by these Articles. The association shall not hereafter invest more than fifteen per cent of its assets in such vendors' contracts authorized by this subsection. Said fifteen per cent shall be considered as included within the forty per cent of assets lending power set out hereinafter.

12. Power to borrow. If and when this association is not a member of a federal home loan bank, it shall have power to borrow not more than an aggregate amount equal to one-fourth of its savings deposits on the date of borrowing. If and when this association is a member of a federal home loan bank, it shall have power to secure advances of not more than an aggregate amount equal to one-half of its savings deposits. Within such amount equal to one-half of its savings deposits, the association may borrow from sources other than such federal home loan bank an aggregate amount not in excess of ten percent of its savings deposits. A subsequent reduction of savings liability shall not effect in any way outstanding obligations for borrowed money. All such loans and advances may be secured by property of the association.

13. Automatic authorization. This association may have the right to participate in any new or additional powers or activities now or hereafter granted to the association immediately upon the effective date of such additional authority.

Section 27. Loan Plans. Real estate loans may be made as authorized by Chapter 534, Code of Iowa, as amended.

Section 28. Contracts for Savings Programs.

1. School savings. The association shall have power to contract with the proper authorities of any public or nonpublic elementary or secondary school or other institution of higher learning, or any public or charitable institution caring for minors, for

the participation and implementation by the association in any school or institutional thrift or savings plan, and it may accept savings accounts or savings deposits at such a school or institution either by its own collector or by any representative of the school or institution which becomes the agent of the association for such purpose.

2. Payroll savings plan. The association shall have power to contract with any corporation of any type for investment in the association by employees under a payroll savings plan.

Section 29. Transferred Savings Accounts or Savings Deposits Not to be Offset. A borrowing member shall not without permission of the Board of Directors be permitted to offset against his indebtedness to the association any savings accounts or savings deposits in the association acquired directly or indirectly from other members.

Section 30. Power to Borrow. When authorized by the Board of Directors, this association shall have power to borrow from a Federal Home Loan Bank in amounts not in excess of fifty (50) per cent of the aggregate amounts paid in and credited on savings deposits not pledged as security for loans, or not in excess of ten (10) per cent of such savings deposits from other banks. It may pledge its assets to secure advances from a Federal Home Loan Bank, or a banking institution.

Section 31. Limited Liability. The members of the association shall not be responsible for any losses which its savings deposits shall not be sufficient to satisfy, and savings deposits shall not be subject to assessment. The private property of members shall be exempt from liability for corporate debts and the provisions of this article shall not be changed during the existence of this association.

Section 32. Expenses — Limitations — How Paid. All expenses for management and conducting the affairs of this association shall be paid from the earnings of the association and not from capital paid in. Such expenses shall not in any one year exceed the limitations prescribed by law.

Section 33. General Powers. This association shall have power to do such other things as may be incidental to or reasonably necessary for accomplishing the objects and purposes for which it is organized.

Section 34. Bylaws. The Board of Directors shall have power to adopt, repeal, and amend bylaws which shall provide for the the management and conduct of the business of this association within the provisions of the laws of Iowa, these articles of incorporation and all legal rules and regulations of the supervisor of savings and loan associations.

Section 35. Amendments. Any of these articles of incorporation, except the section holding the property of its members exempt from liability for the association debts, may be repealed, amended, altered or added to at any annual or special meeting of the members

by a vote of two-thirds of the savings deposits represented at such meeting, subject to approval of the executive council of the State of Iowa.

In witness whereof, we have signed our name, this _____ day of _____, 19____.

Name

Address

BANKING DEPARTMENT

SMALL LOAN DIVISION

CHAPTER 1 SMALL LOANS

1.1(536) Application.

1.1(1) Form used. Printed copies of application for license shall be obtained from the Superintendent, Department of Banking, State of Iowa, Des Moines, Iowa. The printed application form shall be used by each applicant when applying for a license. All questions shall be answered in full and whenever space is inadequate a rider may be attached giving in full the information required.

1.1(2) License and investigation fee. Separate checks or money orders in payment of investigation fee and annual license fee must accompany the application. Each check or money order shall be made payable to the superintendent of banking.

1.2(536) Suspension, revocation or surrender of license.

1.2(1) Refund. No refund of license fee shall be made wherein a license is revoked or surrendered.

1.2(2) Responsibility of license. In order to preclude violation of any provision of the Small Loan Act or any general rule or regulation thereunder, it shall be the responsibility of each licensee to assure that each person in charge of or employed in its place of business shall be familiar with the laws and regulations relating to the business of making, servicing and collecting loans under the provisions of the Small Loan Act.

1.3(536) Records.

1.3(1) Loan register. A "Loan Register" or its equivalent record which shall be the book of original entry and a permanent record, shall show for every loan: Account number, date of loan, name of borrower, and nature of security. The register shall be kept numerically by loan number in the order made.

1.3(2) Ledger card.

a. Such account card shall show: Name and address of borrower; loan number; date of loan; terms of repayment including maturity date; nature of security; cost of credit life and credit health and accident insurance (such premium to be stated separately); name of any endorsers, comakers or sureties; amount and date of receipt of recording and releasing fees and amount and dates of payment of recording and releasing fees as paid out for filing a financing statement or

termination statement, including the fee required for securing a lien on a motor vehicle title.

b. The card for an interest bearing loan shall show the amount of the loan, the amount and date of each payment of principal and of interest and the balance due on principal. If a portion of the interest earned is not paid at the time payment is made, the card for an interest bearing loan must show either the date to which interest is paid or the amount of interest then due but unpaid.

c. The card for a precomputed loan shall show the actual amount of the loan excluding the precomputed interest, the amount of the precomputed interest, and the face amount of the note including interest, the amount and date of each payment applied to the note, the unpaid balance of the note after applying such payment, and the date and amount of any additional interest collected as default or deferment charges. If deferment interest is collected in whole or in part, the card shall indicate the particular installment deferred and the number of times deferred plus the date of the final installment and any uncollected portion of the deferment interest.

d. When a precomputed loan is prepaid in full, the card must show the date of prepayment, the amount paid to discharge the loan, the amount of the interest rebate, and any deduction from the rebate for previously earned but uncollected default or deferment interest.

e. When any loan is prepaid in full, either by cash or renewal, refunds of the unearned premiums of credit life and accident and health insurance shall be recorded on the card.

f. If payment is made in any other way than in the ordinary course of business, it shall be so designated; for example, payment by sale of security, insurance claim, or endorser.

g. No erasures whatsoever may be made in the payment section of any account card. In case of error a line should be drawn in ink through the improper entry and the correct entry made on the following line. The entries on the card shall correspond with the receipts given to the borrower.

h. Paid-in-full and renewed ledger cards which no longer reflect an active loan are to be accumulated in a separate section of the files of the licensee and retained from one banking department examination to the next. After the examination, these cards may be filed in a permanent file.

1.3(3) Loan file. A separate file shall be maintained for each borrower in the office where the loan is outstanding. Such file shall contain the note, security agreement, wage assignment and all other evidence of indebtedness or security pertaining to the loan except when the note is kept in a separate promissory note file or when said papers are in custody of a court or an agent for collection or are hypothecated. When a borrower is also a co-maker, guarantor or endorser on another loan, the file of such borrower shall be cross-referenced to the other, unless such cross-referencing is included on the alphabetical record required by 1.3(5) or on the individual account card required by 1.3(2). All instruments taken in connection with a loan and signed by a borrower must bear the loan number.

1.3(4) Payments. All receipts and disbursements of any amount shall be entered on the records of the licensee as of the day they occur. Separate headings shall be provided for payments on principal and interest. In the case of precomputed loans, payments applied to the note may be shown as a lump sum and need not be itemized between principal and precomputed interest, but additional interest collected for default or deferment shall be itemized or otherwise separately indicated.

1.3(5) Index. An alphabetical record shall be maintained and show the name of each borrower, endorser, comaker or surety who is currently indebted to the licensee, together with sufficient information to locate the account card.

1.3(6) Payments.

a. All payments shall be credited on the account card as of the day of receipt. Interest shall be charged only from the date the proceeds of the loan are delivered to the borrower even though the note shall bear a prior date.

b. When payment is received on an interest bearing loan, the receipt for each payment shall show the amount applied to interest and the amount applied to principal.

1.3(7) Examination of records. The records previously mentioned and any additional records as may be used by a licensee shall be made available for examination upon request by the superintendent of banking or his designated representatives.

1.3(8) Disbursement voucher. Licensees shall use a disbursement voucher in conjunction with each loan showing a detailed itemization of the distribution of the loan proceeds. Such voucher is to be signed by the borrower except when a loan is made by mail.

1.3(9) Date of death. When a death claim is filed with an insurance company, the exact date of death is to be recorded on the loan ledger card.

1.3(10) Annual report. An annual report shall be prepared and submitted to the super-

intendent of banking for each licensed place of business located within the state of Iowa. If a company owns and operates more than one licensed office in the state, then separate reports for each licensed office and a composite statement for all licensed offices owned and operated within the state shall be prepared and submitted to the superintendent of banking. Annual reports shall be completed as prescribed by the superintendent of banking.

1.4(536) Miscellaneous restrictions.

1.4(1) Advertising.

a. The words "advertisement" and "advertising" as used in these regulations shall include all material printed, published, displayed, distributed, broadcast or televised for the purpose of obtaining applications for loans.

b. No licensee shall advertise, display or distribute mailing pieces which have a similarity or resemblance to a bank counter check, postal or express money order, U.S. currency, cash exchange certificate, cash reserve certificate, or any negotiable instrument whatsoever (except a promissory note payable to the licensee) or any city, county, state or federal warrant and shall not use an envelope employing the words "Treasurer's Office" for return name and address, or which is in any manner similar to U.S. government, state, county or city envelopes used in any area.

c. No licensee shall advertise, display, distribute, broadcast, televise, or cause or permit to be advertised, displayed, distributed, broadcast, or televised, any matter whatsoever concerned with the business authorized by chapter 536 of the Code, which indicates that loans may be obtained in amounts greater than permitted by law.

d. Licensees shall not feature in any advertisement such terms as "reduced rates" or "reduced payments" or similar phrases which apply only to a specific type of loan, unless such advertisement shall clearly state the type of loan to which such advertisement shall apply.

e. Licensee shall not employ unqualified superlatives in advertising, such as "lowest rates", "lowest costs", "lowest payment plan", or "cheapest loans".

f. Licensees shall not offer any monetary inducement, premiums, commissions or anything of value to present or prospective borrowers to encourage them to borrow money.

g. Licensees shall not use blind loan advertisements such as displaying only telephone numbers or box addresses which do not clearly indicate the identity of the licensee.

1.4(2) Closing loans.

a. No lender shall accept applications for loans or close loans at any place other than that named in the license. However, under unusual or peculiar circumstances or when the loan is made by mail, the signature of one or more of the borrowers may be obtained outside of the loan office, provided that such signatures are obtained by an actual and bona fide

employee of the lender, or by the spouse of the borrower.

b. A licensee shall have authority to make and complete loans by mail from the lender's licensed office. In making such loans, the lender shall mail all necessary papers to the borrower and upon completion of such papers by the borrower, the check or money order representing proceeds of the loan shall be mailed from the licensee's office.

c. No licensee shall permit any person other than a bona fide employee to complete its notes, security instruments or any other form used in small loan transactions, nor shall any person other than a bona fide employee be permitted to accept payments on such loans except delinquent loans referred to other parties for collection purposes.

d. The licensee shall explain to the borrower in general terms the contents of the note, security agreement and any and all other papers taken in connection with the completion of a small loan. No instrument shall have blanks left to be completed after being signed.

1.4(3) Splitting loans. An individual, co-partnership, association or corporation holding more than one license shall not induce or permit any borrower or any husband and wife, individually or jointly, to be indebted to him under more than one contract of loan at the same time at any one or more of his licensed offices.

1.4(4) Recording and releasing fees.

a. When a loan is made or any time thereafter, a licensee may charge the borrower such fees as are required for filing, recording and releasing a financing statement or mortgage if such instrument has been filed with a county recorder or the secretary of state. No fee in excess of that which is actually to be charged by the county recorder or secretary of state shall be collected from the borrower. A licensee may charge the borrower such fee as is required for recording an automobile certificate of title lien with the county treasurer's office. No fee shall be collected from the borrower exceeding that actually charged by the county treasurer.

b. Any releasing fee collected is to be carried forward on all future ledger cards until the amount is disbursed.

1.4(5) Deferments.

a. Deferments may be granted with or without the consent or request of the borrower. No installment which has been partially paid, or for which a default charge has been collected, shall be deferred or included in the computation of the deferment charge unless such partial payment or default charge is refunded to the borrower or credited to the deferment charge.

(1) If the deferment is granted at the request or with the consent of the borrower, the deferment may be granted at any time, and for such number of full months as may be agreed upon between the parties.

(2) If the deferment is made at the option of the lender alone, the lender shall give the borrower appropriate written notice that the deferment has been granted disclosing the date of the deferment, the amount of the deferment charge, the date on which the next installment is scheduled to be paid and the deferred maturity date of the loan. The number of months of any deferment shall not exceed one month plus the number of full installments in default.

(3) Any provision in any promissory note or other document which is not in conformity with the foregoing provisions shall not be deemed objectionable so long as the foregoing provisions are complied with in all respects.

1.4(6) Default charge. Default charges are not to be collected if payment is made by accident and health insurance claim.

1.5(536) Release of security. Upon repayment of the loan in full by cash, a new loan, or otherwise, the licensee must within thirty days mark indelibly every obligation and security other than a mortgage or security agreement signed by the borrower with the word "paid" or "canceled", and release any mortgage or security interest which no longer secures a loan to the licensee, restore any collateral, return any note and any assignment given by the borrower.

1.6(536) Sales finance contracts.

1.6(1) Written permission to purchase. If the superintendent of banking shall grant in writing permission to a licensee to purchase sales contracts from third parties, the total indebtedness of a borrower due to the licensee together with that due on contracts purchased may exceed the amount prescribed by statute provided that:

a. The small loan and sales contracts are not knowingly made simultaneously.

b. No licensee shall make a loan simultaneously with the purchase of a time sales contract by it or by an associate or affiliate if the debtor under both the loan and sales contracts is the same and the loan and sales contracts together exceed one thousand dollars. Any loan made within fifteen days either before or after the purchase of a time sales contract to the same debtor shall be deemed to constitute a simultaneous transaction.

c. An adequate index system shall be established and maintained by licensees for each type of business permitted in writing by the superintendent of banking in order that the examiner or examiners duly appointed by the superintendent of banking may determine that no violations of the statute exist. Such index system shall contain all current evidence of indebtedness or security which have been signed by the borrower, endorser, guarantor, or surety, except spouse as listed on the record of the borrower.

1.6(2) Usury. It shall be considered usurious and an evasion of the small loan law to

permit any person as a borrower or as an endorser, guarantor or surety to be indebted to a licensee directly or contingently or both at any one time for a sum exceeding one thousand dollars for principal, except that an endorser, guarantor or surety for any borrower shall also be permitted to borrow as long as the total of the guaranteed and direct loan does not exceed one thousand dollars and if the legal instruments which the endorser, guarantor or surety signed as such are noted to read that such person "appears on this note as endorser, guarantor or surety and is responsible for the principal balance only".

1.7(536) Insurance.

1.7(1) *Kind permitted.* No licensee under chapter 536 or any person or corporation affiliated with the licensee shall solicit insurance, take any application, requisition or request for insurance, or receive profits from insurance in connection with any loans made under chapter 536 except credit life and credit health and accident insurance. The term of such credit insurance shall not extend beyond the final maturity date of the loan contract, and only one obligor on any one loan contract may be insured.

1.7(2) *Amount of insurance.* The initial amount of life insurance cannot exceed the total amount repayable (principal and interest). Thereafter, the amount of life insurance in force during the term of insurance shall not exceed the scheduled monthly loan payment multiplied by the number of unexpired due dates or the amount required to discharge the loan contract, whichever is greater.

1.7(3) *Monthly benefit.* The amount of each periodic benefit payment provided by credit accident and health insurance shall not exceed the scheduled periodic loan payment.

1.7(4) *Computation of insurance proceeds.* The date of death of any obligor who is covered by credit life insurance shall be considered as the date of final payment on both interest bearing and precomputed loans. Compute refund of unearned interest as of the date of death. In computing such refund the number of months elapsed is equal to the number of expired due dates plus the next due date if death occurs sixteen days or more after a scheduled due date. The difference between the amount of insurance in force and the balance due the licensee, after deducting interest refund, must be paid to the second beneficiary or estate of the deceased.

1.7(5) *Insurance premium refunds.* Whenever a loan is paid in full or renewed before maturity (except by insurance), existing life insurance and accident and health insurance must be canceled, and unearned premiums refunded.

a. When a loan is paid in full or renewed prior to the first scheduled due date, the insurance shall be deemed to have been in force for one full month.

b. In computing the unearned premiums on or after the first scheduled due date, the number of months elapsed is the number of expired due dates plus the next date if prepayment in full or renewal occurs sixteen days or more after a scheduled due date.

c. A premium refund or credit need not be made if the total amount thereof for both credit life and credit health and accident insurance is less than one dollar total.

1.7(6) *Credit insurance premium refund upon settlement by life or health and accident claim.* When the loan balance is paid by claim under the insurance provisions of credit life insurance, the date of death shall be considered as the date of payment of the account and the unearned premium on the credit health and accident insurance shall be refunded. Such refund is to be added to the death benefit proceeds and used first to liquidate the loan balance with any excess to be paid to the second beneficiary or the estate of the insured member. Similarly, should the insurer of the health and accident coverage elect to liquidate the contract balance in one sum, the date of such payment shall be the date used to compute the amount of the unearned premium on the credit life insurance and such amount of refund shall be paid to the insured. In the case of a precomputed loan, both the unearned interest and refund of unearned credit life premium are to be paid to the insured.

1.8(536) *Interest rate.* Pursuant to the power granted to the state banking board under section 536.13(1) "b" and section 536.13(2) of the Code, and after giving notice and opportunity to be heard as prescribed by section 536.13(3), the state banking board in action taken at the regular board meeting held September 11, 1969 fixed the maximum interest that may be charged beginning January 1, 1970 and until such time as a different rate is fixed by the board as three percent per month on any part of the unpaid principal balance of the loan not exceeding two hundred and fifty dollars and two percent per month on any part of the loan in excess of two hundred and fifty dollars, but not exceeding four hundred dollars, and one and one-half percent per month on any part of the unpaid principal balance in excess of four hundred dollars.

This rule is intended to implement section 536.13 of the Code.

[Filed March 13, 1968; amended October 14, 1969]

CHAPTER 2

CREDIT UNION EXAMINATION FEE

2.1(533) *Purpose.* The purpose of this regulation is to establish fees to be paid to the superintendent of banking for making, or causing to be made, examinations of credit unions in accordance with section 533.6, which section requires the superintendent of banking to determine the examination fee and to base the said determination upon certain costs.

2.2(533) Examination fee. The superintendent of banking has made the following determination, based upon the actual cost of the operating expense of the credit union division of the department of banking and the proportionate share of the administrative expenses

Assets:	
Less than	\$ 25,000
Over \$ 25,000—	\$ 50,000
Over \$ 50,000—	\$ 100,000
Over \$ 100,000—	\$ 250,000
Over \$ 250,000—	\$ 500,000
Over \$ 500,000—	\$ 750,000
Over \$ 750,000—	\$ 1,000,000
Over \$ 1,000,000—	\$ 2,000,000
Over \$ 2,000,000—	\$ 3,000,000
Over \$ 3,000,000—	\$ 4,000,000
Over \$ 4,000,000—	\$ 6,000,000
Over \$ 6,000,000—	\$10,000,000
Over \$10,000,000—	

Basic:	
\$ 25.00 plus	
\$ 100.00 plus	
\$ 150.00 plus	
\$ 175.00 plus	
\$ 250.00 plus	
\$ 425.00 plus	
\$ 450.00 plus	
\$ 750.00 plus	
\$1,200.00 plus	
\$1,500.00 plus	
\$2,000.00 plus	
\$2,500.00 plus	
\$2,850.00 plus	

Assets Scale:	
Nil	
4¢ per \$100 of assets	
3¢ per \$100 of assets	
3¢ per \$100 of assets	
3¢ per \$100 of assets	
2¢ per \$100 of assets	
2¢ per \$100 of assets	
2¢ per \$100 of assets	
2¢ per \$100 of assets	
2¢ per \$100 of assets	
2¢ per \$100 of assets	
2¢ per \$100 of assets	

2. Together with an annual fee as follows, payable on the December 31 asset figure and

Assets:	
Less than	\$ 500,000
Over \$ 500,000—	\$ 1,000,000
Over \$ 1,000,000—	\$ 2,000,000
Over \$ 2,000,000—	\$ 5,000,000
Over \$ 5,000,000—	

Maximum Fee:	
30¢ per \$1,000 (\$15 Minimum)	
\$150 plus 25¢ per \$1,000 in excess of \$ 500,000	
\$275 plus 20¢ per \$1,000 in excess of \$1,000,000	
\$475 plus 15¢ per \$1,000 in excess of \$2,000,000	
\$295 plus 10¢ per \$1,000 in excess of \$5,000,000	

This rule is intended to implement chapter 533 of the Code.

[Filed December 14, 1965]

STATE BANK DIVISION

CHAPTERS 3 TO 7

Reserved for future use

CHAPTER 8

GENERAL BANKING POWERS

8.1(524) Deposits defined.

8.1(1) A demand deposit includes every deposit which is not a time deposit or savings deposit as defined in 8.1(2) and 8.1(3) respectively. Gross demand deposits for purposes of 8.7(524) shall consist of the sum of all such demand deposits. Net demand deposits shall consist of gross demand deposits less items in process of collection, payable immediately upon presentation to banks under a local clearing agreement.

8.1(2) Time deposit. Time deposit includes time certificate of deposit, time deposit open account, and multiple maturity time deposit as follows:

a. Time certificate of deposit. A deposit evidenced by a negotiable or nonnegotiable instrument which provides on its face that the amount of the deposit is payable on a certain date, specified in the instrument, not less than thirty days after the date of the deposit; or at the expiration of specified period not less than thirty days after the date of the instrument; or upon written notice to be given not less than thirty days before the date of repayment.

in the operation of the department of banking attributable to credit unions:

1. The examination fee of state chartered credit unions shall be as follows, and payable at the close of each examination by check payable to the superintendent of banking.

b. Open account. A deposit, other than a time certificate of deposit, with respect to which there is in force a written contract with the customer that neither the whole nor any part of such deposit may be withdrawn, by check or otherwise, prior to the date of maturity, which shall be not less than thirty days after the date of the deposit, or prior to the expiration of the period of notice which must be given by the customer in writing not less than thirty days in advance of withdrawals.

c. Multiple maturity. A time deposit that is payable at the customer's option on more than one date, whether on a specified date or at the expiration of a specified time after the date of deposit, after written notice of withdrawal, or with respect to which the underlying instrument or contract or any informal understanding or agreement provides for automatic renewal at maturity.

8.1(3) Savings deposit. A savings deposit consists of funds credited to the account of one or more individuals, or in which the beneficial interest is held by one or more individuals, or of a corporation, association, or other organization operated primarily for religious, philanthropic, charitable, educational, fraternal, or other similar purposes and not operated for profit, or in which the entire beneficial interest is held by one or more individuals or by such a corporation, association, or other organization, and with respect to which the customer is not required by the deposit contract but may at any time be required by the state bank to give not less than thirty days' notice

in writing of an intended withdrawal before such withdrawal is made and which is not payable on a specified date or at the expiration of a specified time after the date of deposit.

8.2(524) Maximum interest on time and savings deposit. The superintendent of banking hereby prescribes the following maximum rates of interest payable on time and savings deposits.

8.2(1) Single maturity time deposits of \$100,000 or more. The following schedule shall apply:

Maturity	Maximum percent
30— 59 days	No maximum limitation
60— 89 days	No maximum limitation
90—179 days	6¾ %
180 days or more but less than 1 year	7 %
1 year or more	7½ %

8.2(2) Single maturity time deposits of less than \$100,000. The following schedule shall apply:

Maturity	Maximum percent
30 days or more but less than 1 year	5 %
1 year or more but less than 2 years	5½ %
2 years or more	5¾ %

8.2(3) Multiple maturity time deposits. The following schedule shall apply:

Maturity	Maximum percent
30 days or more but less than 90 days	4½ %
90 days or more but less than 1 year	5 %
1 year or more but less than 2 years	5½ %
2 years or more	5¾ %

8.2(4) Savings deposit. The maximum rate of interest is four and one-half percent per annum.

[Filed January 28, 1971]

8.3(524) Paying interest on other than demand deposits.

8.3(1) Compounding. In calculating the rate of interest paid, the effects of compounding of interest may be disregarded. A state bank which elects to compound interest shall state the time period of compounding in every statement required by section 524.805(3) of the Code and in every notice or advertisement.

8.3(2) Grace period. A state bank may pay interest on a savings deposit received during the first ten calendar days of any calendar month at the permissible maximum rate calculated from the first day of the calendar month until such deposit is withdrawn or ceases to become a savings deposit. A state bank may pay interest on a savings deposit withdrawn during its last three calendar business days of any calendar month ending a regular quarterly or semiannual interest period at the permissible maximum rate calculated to the end of the calendar month.

8.4(524) Effect of maturity on payment of interest. After the date of maturity of any time deposit, such deposit is a demand deposit, and no interest may be paid subsequent to that date or after the expiration of the period of notice given with respect to the repayment of such time deposit or savings deposit when applicable. The foregoing sentence does not preclude a customer and the state bank from using the same account to initiate a new time or savings deposit relationship upon proper notice. If a time or savings deposit is renewed, automatically or by action of the customer, within ten days after maturity or expiration of the period of notice, the renewed deposit or any renewed portion may draw interest from the date of maturity or expiration date of the period of notice, and a time certificate may be dated back to the maturity date of the matured certificate.

8.5(524) Payment of time deposits before maturity. Except as provided in 8.5(2), a state bank shall not pay a time deposit prior to the contractual term.

8.5(1) A state bank may make a loan to the customer upon the security of his time deposit, provided that the rate of interest on the loan is not less than two percent per year more than the rate of interest on the time deposit.

8.5(2) Where it is necessary to prevent great hardship to the customer, a state bank may pay before maturity a time deposit or the portion thereof necessary to meet such emergency. Before making such payment the customer shall sign an application describing fully the circumstances constituting the emergency which is deemed to justify the payment of the deposit before maturity, which application shall be approved by an officer of the bank who shall certify that, to the best of his knowledge and belief, the statements in the application are true. Such application shall be retained in the files and made available to the examiners authorized to examine the state bank. Where a time deposit is paid before maturity the customer shall forfeit accrued and unpaid interest for a period of not less than three months on the amount withdrawn if an amount equal to the amount withdrawn has been on deposit three months or longer, and shall forfeit all accrued and unpaid interest on the amount withdrawn if an amount equal to the amount withdrawn has been on deposit less than three months. When a portion of a time certificate of deposit is paid before maturity, the certificate shall be canceled and a new certificate shall be issued for the unpaid portion of the deposit with the same terms, rate, date and maturity as the original deposit.

8.6(524) Payment of savings deposits. Whether or not interest is paid, a state bank shall not require or waive notice of withdrawal as to any amount or percentage of the savings deposit of any customer unless it shall similarly require or waive notice as to the

savings deposits of every other customer subject to the same contractual provisions with respect to notice or withdrawal.

If a state bank, without requiring notice of withdrawal, pays interest that has accrued on a savings deposit during the preceding interest period, it shall, upon request and without requiring such notice, pay interest that has accrued during the period on the savings deposits of every other customer.

A state bank shall not change its practice with respect to requiring or waiving of notice of withdrawal of savings deposits for the purpose of discriminating in favor of or against any customer.

Any change of practice shall be made only pursuant to duly recorded action by the directors of the state bank.

A state bank which does not require notice of withdrawal of savings deposits is not restricted as to loans to its customers on the security of such deposits. If it is the practice of the state bank to require notice of withdrawal of a savings deposit, a state bank may make a loan to a customer upon the security of his savings deposit, provided that the rate of interest on the loan is not less than two percent more than the rate of interest on the savings deposit.

8.7(524) Cash reserve formula. Cash reserves required by section 524.816 of the Code shall consist of the sum of the following assets taken from the daily statement for each business day:

1. Coin and currency on hand.
2. Debit balances with other banks in the seventh, eighth, ninth and tenth federal reserve districts, less remittances deb-

ited to each such bank for the day for which reserves are being computed.

3. Debit balances with all other banks, less any remittances debited to each such bank for the day for which reserves are being computed and less remittances, if any, debited for the previous business day.

For purposes of applying section 524.1602(1) of the Code, the cash reserve shall not be deemed to be deficient if the average of the cash reserve for the day for which the computation is made and the four preceding business days is at least equal to the average cash reserve requirement for such five-day period. Corrective action shall be taken on the day following the date of the daily statement for which the computation of averages discloses a deficiency in the cash reserve.

[Filed December 9, 1969]

CHAPTER 9

INVESTMENT AND LENDING POWERS

9.1(524) Bonds or securities investment characteristics. Bonds or other investment securities purchased for investment by a state bank for its own account as provided in section 524.901(2) of the Code shall consist of obligations, which have been publicly offered or which are of such sound value or are so well secured as to be readily salable at a fair value, with investment characteristics not distinctly or predominantly speculative. They shall fall within the four highest grades according to a reputable rating service or they shall represent unrated issues of equivalent value.

[Filed December 9, 1969]

BLIND, COMMISSION FOR

CHAPTER 1

VOCATIONAL REHABILITATION

1.1(93) General provisions.

1.1(1) Coverage. The state plan constitutes a description of the vocational rehabilitation program for the blind for the state of Iowa. The state plan, which provides for vocational rehabilitation services to the blind, is submitted by the state commission for the blind.

The commission accepts the following definition of blindness, and services will not be denied to any person on the grounds that he is not blind if such person meets the condition of either "a" or "b" in the paragraph: (a) Vision not more than 20/200 central visual acuity in the better eye, with correcting glasses, or a field defect in which the peripheral field has contracted to an extent that the widest diameter of visual field subtends at angular distance of not greater than twenty degrees; (b) a combination of loss of visual acuity and loss of vis-

ual field which imposes an employment handicap which is substantially that of a blind person, or a medical prognosis indicating a progressive loss of sight which will terminate in blindness as defined in "a" of this paragraph. A person who is considered blind under the terms of the definition of blindness as stated in "b" of this paragraph will be accepted for services only upon agreement with the general rehabilitation agency in this state.

Any individual who has a visual impairment but who is not eligible for services from the commission under "a" or "b" in the preceding paragraph will be referred to the general rehabilitation agency.

1.1(2) Submittal of plan materials.

a. The director of the commission is authorized to submit plan material, plan amendments and reports direct to the office of vocational rehabilitation.

b. This plan will be amended whenever necessary to reflect a material change in any phase of state law, organization, policy, or agen-

cy operation. Such amendments will be submitted to the office of vocational rehabilitation for approval before they are put into effect or within a reasonable time thereafter.

1.1(3) State-wide application of plan. This plan shall be in effect in all political subdivisions of the state.

1.2(93) Scope of agency program.

1.2(1) Objectives and services. The commission shall provide such activities and services under the vocational rehabilitation plan to each eligible individual found by diagnostic study to require such services as are necessary to render the blind person fit to engage in a remunerative occupation, including: (a) Diagnostic and related services (including transportation) requested for the determination of eligibility for services and the nature and scope of services to be provided; (b) guidance; (c) physical restoration services; (d) training; (e) books and training materials; (f) maintenance during rehabilitation; (g) placement; (h) tools, equipment, initial stocks and supplies; (i) initial stocks and supplies for vending stands; (j) acquisition of vending stand or other equipment, and initial stocks and supplies for small business enterprises under the supervision of the commission; (k) transportation; (l) occupational licenses; and (m) other goods and services which may be necessary.

1.2(2) Remunerative occupation. Remunerative occupation includes: Employment in the competitive labor market; practice of a profession; self-employment, home making, farm or family work (including work for which payment is in kind rather than cash); sheltered employment, and industries or other home-bound work of a remunerative nature.

1.3(93) Case finding and intake. Persons desirous of services offered by the commission for the blind should contact either the commission directly or county welfare offices, local public or private service organizations, general medical practitioners, ophthalmologists or optometrists. Students of the braille and sight saving school are routinely referred to the commission for the blind at that time when commission services are considered feasible.

1.4(93) Eligibility.

1.4(1) General provisions. The commission assumes responsibility for determination of the eligibility of individuals for vocational rehabilitation and of the nature and scope of vocational rehabilitation service to be provided such individuals, and such responsibility will not be delegated to any other agency or individual not of the agency staff.

1.4(2) Basic requirements. Eligibility for vocational rehabilitation will be determined upon the basis of three basic conditions: (a) The existence of blindness as defined in 1.1(1), according to the examination of an approved op-

thalmologist; (b) the impairment constitutes a substantial handicap to employment; (c) there shall be a reasonable expectation that vocational rehabilitation services may render the individual fit to engage in a remunerative occupation. Individuals who are homebound are not excluded.

Eligibility will be determined without regard to citizenship, creed, sex, race, color or national origin of the individual.

1.4(3) Other factors. Six months residence immediately previous to his application is required to establish eligibility for rehabilitation service. However, if the applicant has resided in the state less than six months with evident intention of becoming a permanent resident, he may be accepted.

1.4(4) Certification.

a. Simultaneously with acceptance of the blind person for rehabilitation services, there will be a certification that the individual has met the basic eligibility requirements. The certified statement of eligibility will be signed and dated by the counselor.

b. For each case determined to be ineligible for vocational rehabilitation services there shall be a certificate to that effect, dated and signed by the counselor.

1.4(5) Disabled civil employees of the U.S. government. The same standards of eligibility are applied to disabled civil employees of the U.S. government who are disabled in the line of duty.

1.5(93) Case study and diagnosis.

1.5(1) Purpose. In each case, prior to and as a basis for formulating the individual's plan of vocational rehabilitation, there will be a thorough diagnostic study which will consist of a comprehensive evaluation of pertinent medical, social, psychological, educational, and vocational factors.

The diagnostic study will be adequate to provide the basis for: (a) Establishing that a mental or physical condition is present which limits the activities the individual can perform; (b) appraising the current general health status of the individual in order to determine the limitations and capacities as far as possible; (c) determining how and to what extent the disabling condition may be expected to be removed, corrected, or minimized by physical restoration services, and; (d) selecting an employment objective commensurate with the individual's capacities and limitations.

1.5(2) Scope of case study. In each case, according to the degree necessary, the diagnostic study will include an evaluation of the individual's personality, intelligence level, educational background and achievement, vocational aptitudes and interests, employment experience and opportunities, and personal and social adjustments, and other pertinent data helpful in determining the nature and scope of services to be provided for accomplishing the individual's vocational objective.

1.5(3) Medical diagnostic study. The commission policy will be to provide in each case: (a) A complete general medical examination providing an appraisal of the current medical status of the individual; (b) examination by an ophthalmologist and other specialists in all medical fields, as needed; (c) such clinical laboratory examinations as X-rays and other indicated studies as are necessary to establish the diagnosis and to determine the extent to which the disability may limit daily living and work activity and to estimate the probable results of physical restoration services.

1.5(4) General medical.

a. Minimum procedures routinely required in the general medical diagnosis are: (1) Medical history; (2) determination of the physical and mental abilities and limitations of the individual including laboratory reports on blood, serological and urinalysis. All medical and eye reports must be approved by the ophthalmological and medical consultants.

b. Medical reports in lieu of securing new medical examinations are accepted from reliable sources such as aid to the blind, state university hospitals, and doctors on the accredited list of the state medical society, which can be relied upon to provide sound information. The data requested in the general medical and eye examination report forms must be covered in the resumé.

c. (1) A medical examination report, or a medical abstract resumé, if made within six months of plan development, will be accepted as an adequate substitute for a new examination. Exception to this practice will be made only upon the advice of the medical consultant. (2) An eye report, to be acceptable, must have been made within three months of plan development unless there is an eye report from an established agency or one already on file for the individual case in the office of the aid to the blind, state department of social services, indicating that the disability is static and cannot be eliminated, arrested or reduced by surgery or treatment. Exception to this practice will be made only upon the advice of the ophthalmological consultant.

1.5(5) Medical specialty examinations. Examinations by a specialist in a specialty field will be secured in all cases in which there is a need for a more thorough study as indicated by the medical examination. (a) Eye examinations by accredited ophthalmologists are required. (b) In some very unusual case where the individual cannot reach an ophthalmologist, a report from an optometrist who is on the accredited list of the state department of social services for examinations for applicants for aid to the blind will be accepted. (c) A psychiatric examination will be secured in all cases of mental illness or emotional disturbance. A brief summary of the individual's social and vocational history will be furnished to the psychiatrist. (d) When dentistry is indicated to promote the health of the individual, the commission will provide the service. The

recency of specialists' reports shall be the same as for medical reports.

1.5(6) Diagnostic hospitalization. In-patient hospitalization for diagnostic purposes will be provided in cases in which the diagnostic study required for adequate understanding of the client's condition cannot be satisfactorily done on an out-patient basis.

1.5(7) Psychological evaluation in mental retardation cases. The commission will secure or provide psychological evaluation in all cases of mental or suspected retardation.

1.6(93) Rehabilitation plan for the individual.

1.6(1) Content of plan. An individual plan of vocational rehabilitation will be formulated for each client accepted for rehabilitation services. The plan will be based (a) upon the evaluation of all data secured through the diagnostic study; (b) will specify the vocational rehabilitation objective (or tentative objective when the ultimate objective cannot be determined at the time), the services necessary to accomplish the client's vocational rehabilitation, and the plan for providing or securing necessary services; and (c) will be formulated with the client's participation.

1.6(2) Services to be provided. The plan will provide for all rehabilitation services necessary to accomplish the vocational rehabilitation, and that such services will be carried to completion so far as possible.

1.6(3) Termination or revision of plan. The commission will exercise its discretion in relation to the termination or revision of the individual's plan when for any reason it becomes evident that the services cannot be completed or that the client's needs have changed.

1.7(93) Order of selection for services. All necessary vocational rehabilitation services will be provided without delay to all handicapped individuals determined to be eligible for services. However, if a situation should develop under which vocational rehabilitation services cannot be extended without delay to all eligible clients, a plan amendment will be submitted, setting forth the criteria for order of selection of eligible clients for provision of services.

1.8(93) Guidance.

1.8(1) Policies for guidance of clients. Guidance in the form of vocational rehabilitation counseling, consisting of personal interviews, letters of advisement, and other direct and indirect contacts, are provided every client by a vocational rehabilitation counselor. Beginning with the initial interview, counseling seeks to develop such relationships with the client as are conducive to helping him explore and understand his vocational problems, limitations, and potentialities and to enable him to plan and execute a program of vocational rehabilitation that will accomplish maximum adjustment and satisfaction in suitable em-

ployment. Periodic contacts are maintained for guidance and counseling purposes throughout the entire vocational rehabilitation process and continue until the individual is considered to be rehabilitated, and his case record is ordered closed. Effort is made at all times to develop the independence of the individual and to utilize collateral facilities and co-operating individuals to provide competent guidance in vocational and nonvocational areas effecting the client's program of vocational rehabilitation.

1.8(2) Methods for evaluating progress of client. The individual's progress toward his vocational rehabilitation objective is evaluated by regular contacts, reports from professional personnel or agencies providing vocational rehabilitation services, reports from reliable co-operators and employers, periodic written progress reports by clients, and by the periodic review of all such information or by case staffing procedures.

1.9(93) Economic needs.

1.9(1) Economic need policies.

a. The commission will establish economic need for each client simultaneously with or within a reasonable time prior to provision of those services for which a needs test is required.

b. The following services are provided at the expense of the commission only when found necessary to accomplish the vocational rehabilitation of an eligible disabled person and when the disabled individual is determined to be in economic need: (1) Physical restoration services; (2) maintenance during rehabilitation (except under no circumstances is maintenance paid after a client is placed and actually receives remuneration for his employment or after thirty days from the date a client is placed in self-employment or for more than thirty days during an interruption of service or during any one illness of an acute intercurrent nature); (3) transportation (except transportation for diagnosis is not conditioned on economic need); (4) occupational licenses; (5) books and training materials; (6) tools, equipment, and initial stocks (including livestock) and supplies; equipment and initial stocks and supplies for vending stands; and necessary shelters in connection with the foregoing items; and (7) such goods and services as business licenses and reader or attendant services found necessary to render an eligible handicapped person fit to engage in a remunerative occupation.

Financial need is not a condition for the provision of any services not specifically mentioned or referred to in the paragraph immediately above.

c. The agency will maintain a written standard for measuring the financial need of clients with respect to normal living requirements and for determining their financial ability to meet the cost of necessary rehabilitation services. In the case of a client receiving aid to

the blind, no further investigation is required to establish his financial need. Such information is available to the commission at all times from the department of social services.

d. In the determination of economic need, the commission will secure data regarding the financial circumstances of the client, including his resources, living requirements, and obligations. The client (or a responsible relative or guardian) will be regarded as the primary source of information about his financial circumstances and needs, although information from other reliable sources may be obtained if necessary.

e. All consequential resources available to the individual will be taken into account in calculating his financial need, with the exception of certain resources defined in the following section on methods of determining economic need.

1.9(2) Methods of determining economic need.

a. Need standard. The commission maintains a written standard for measuring financial need of clients in terms of normal living requirements. This standard is determined, following consideration of available information of the current cost of living, on the basis of the usual requirements which would provide the elements of living essential to the maintenance of the client's morale, and to permit the effective and successful undertaking of his vocational rehabilitation.

This standard consists of a basic standard for determining normal living requirements for all clients and adaptations of this standard to meet special circumstances. These circumstances include: (1) Special needs accompanying designated types of disabilities; (2) variations based on differences in cost of normal living requirements in different localities; (3) variations based on the nature of normal living requirements caused by the particular rehabilitation services to be provided; (4) other objectively defined circumstances affecting the requirements of individuals in those circumstances.

This standard will also be adapted to meet the need for short periods of medical care for acute conditions arising during the course of vocational rehabilitation. Treatment will be available for a period not to exceed thirty days in the case of any one illness.

Prior to the provision of services conditioned upon financial need, the commission's need standard or its modification appropriate to the defined circumstances will be applied in each case to determine the existence and extent of the individual's need. The individual will be considered in financial need if he has insufficient resources to procure normal living requirements as defined by the standard, and to meet the cost of necessary vocational rehabilitation services conditioned on financial need.

b. Client resources. In determining the financial circumstances of the individual, the

commission will identify all consequential resources actually available to him, however derived, including all resources of the client, his spouse, and, if the client is a minor, the resources of his parents. These resources consist of current income, including remuneration in kind and remuneration from on-the-job training; any benefits to which the individual may be entitled by way of pension, compensation or insurance; and capital assets, including both real and personal property.

The commission has established policies regarding conditions under which resources are considered "actually available" to the client. Only those resources which are actually available to him for use during the period of his vocational rehabilitation will be taken into account.

The commission has established policies providing that certain defined resources of the client may be retained by him and need not be used in his vocational rehabilitation program. Resources which the client will not be expected to apply toward the cost of services involved in his vocational rehabilitation program are:

(1) Amounts specified below of capital assets, both real and personal property, provided that current income will not be disregarded.

Ten thousand dollars in capital assets, other than cash, including client's shelter on basis of tax evaluation and including both real and personal property not otherwise specifically exempt.

Cash assets in an amount not to exceed one thousand dollars for a single person or one thousand five hundred dollars for a married person.

(2) Resources of any type needed to meet the client's obligations for:

Support of dependents (including only persons in the home for whom he has assumed responsibility, and other persons for whose support he is legally responsible) in accordance with the standard established by the agency to measure the amount in which this obligation will be recognized. This standard is determined on the basis of the usual requirements which would provide the elements of living essential to adequate maintenance of the health of the client's dependents for their participation in ordinary activities and includes, in addition to the assets set forth in item 1, the resources invested in necessary home furnishings used by dependents and resources invested in tools, equipment, and vehicles used in providing support of dependents.

Obligations which the client is required by legal process to pay or which, if not recognized, would constitute a substantial obstacle to achievement of his vocational rehabilitation objective.

c. Total resources. The total consequential resources actually available to the client, minus capital assets disregarded, and minus the amounts needed to meet obligations in accord-

ance with applicable policies, will be considered to constitute the client's resources. In each case, the amount of the commission's supplementation will be the amount by which the individual's living requirements, plus the cost of services to be purchased, exceed his resources for obtaining the planned vocational rehabilitation services conditioned on economic need.

If, prior to the start of the consummation of the rehabilitation plan, it is evident that a client is in need of clothing to make it possible for him adequately to clothe himself during training or other rehabilitation program, the agency may expend whatever is necessary to provide the needed clothing.

1.9(3) Uniform application and equitability of standards. The staff of the commission will be provided with written standards and instructions, and such training and supervision in their use as are necessary to achieve uniformity in applying them. Instructions as to monetary amounts for measuring the individual's normal living requirements, for recognizing obligations, for support of dependents, for amounts of capital assets that may be disregarded in calculating resources will be included in such instructions. Standards and policies on determining financial requirements and consideration of resources will provide for equitable treatment of all clients.

1.10(93) Confidential information.

1.10(1) Agency regulations. The commission maintains such regulations and rules as are necessary to assure that all information as to the personal facts and circumstances of applicants or clients given or made available to the agency, its representatives, or employees in the course of administration of the vocational rehabilitation program, including lists and names and addresses and records of agency evaluations will be held to be confidential.

The use of such information and records will be limited to purposes directly connected with the administration of the vocational rehabilitation program and may not be disclosed, directly or indirectly, other than in the administration of the program, unless the consent of the client to such release has been obtained either expressly or by necessary implication. Release of information to employers in connection with placement of the rehabilitation client may be considered as a release of information in connection with the administration of the rehabilitation program. Such information may, however, be released to welfare agencies or programs from which the client has requested services, for which his consent may be presumed, provided such agencies have adopted regulations which will insure that the information will be held confidential, and can assure that the information will be used only for the purposes for which it is provided.

All such information is the property of the commission and may be used only in accordance with the agency's regulations.

1.10(2) Agency procedures. The commission has adopted such procedures and standards as are necessary to (a) give effect to its regulations; (b) to assure that all clients and interested persons are informed of the confidential nature of rehabilitation information; (c) assure the adoption of such office practices and availability of such office facilities and equipment as will assure the adequate protection of the confidential nature of the records.

1.11(93) Services to individuals.

1.11(1) Training and training materials.

a. Training. All necessary vocational rehabilitation services will be made available to eligible individuals to the extent necessary to achieve vocational rehabilitation. Training will include vocational, prevocational, personal adjustment training, and other rehabilitation training which contributes to the individual's vocational adjustment. It also includes training provided directly by the state agency or procured from other private or public training facilities.

b. Training materials. All necessary training supplies are provided to the client including: Books, tape recorders and tapes, instruments for students taking chiropractic training, clinical coats, piano-tuning tools, aprons, and other necessary helps.

1.11(2) Physical restoration services. It is the policy of the commission to secure physical restoration services, when such are not otherwise available, for eligible disabled individuals to the extent necessary to achieve their vocational rehabilitation. "Physical Restoration Services" means those medical and medically related services which are necessary to correct or modify substantially within a reasonable period of time a physical or mental condition which is stable or slowly progressive, and includes: (a) Medical or surgical treatment by general practitioners or medical specialists; (b) psychiatric treatment; (c) dentistry; (d) nursing services; (e) hospitalization (either in-patient or out-patient care) and clinic services; (f) convalescent nursing or rest home care; (g) drugs and supplies; (h) prosthetic devices essential to obtaining or retaining employment; (i) physical therapy; (j) occupational therapy; (k) medically directed speech and hearing therapy; (l) physical rehabilitation in a rehabilitation facility; (m) treatment of medical complications and emergencies, either acute or chronic, which are associated with or arise out of the provision of physical restoration services, or inherent in the condition under treatment; and (n) other medical or medically related rehabilitation services.

Physical restoration services will be furnished to an eligible client only when the following criteria are met: (1) The clinical status of the individual's condition must be stable or slowly progressive (i.e., the condition must not be acute or transitory, or of so recent an origin that the resulting functional

limitations affecting occupational performance cannot be identified); (2) eliminate or substantially reduce the handicapping condition within a reasonable period of time; (3) the individual must be found to be in need of financial assistance in meeting the costs of the services.

1.11(3) Transportation. The agency furnishes transportation incidental to provision of diagnostic or other vocational rehabilitation services. Transportation includes: Cost of travel and subsistence during travel (or per diem allowances in lieu of subsistence) for the client and his attendant or guide when such assistance is needed.

1.11(4) Maintenance.

a. Maintenance will be provided only in order to enable an individual to derive the full benefit of other vocational rehabilitation services that he is receiving.

b. Maintenance grants cover the handicapped individual's basic living expenses such as food, shelter, clothing, health maintenance, and other subsistence expenses essential to achieving the individual's vocational rehabilitation objective.

c. As needed in the individual case, maintenance may be provided at any time in connection with vocational rehabilitation services from the date of initiation of services, including diagnostic services, until such time as the client actually receives remuneration (not more than thirty days after placement) from his employment, or in the case of the client placed in self-employment, for not more than thirty days after he is so placed.

d. The commission assumes responsibility for providing as a part of maintenance amounts to cover the cost of medical care for short periods necessary to treat acute conditions arising in the course of vocational rehabilitation which, if not cared for, would constitute a hazard to achieving the individual's vocational rehabilitation objective. Such medical care shall be available for a period not to exceed thirty days in the case of any one illness.

1.11(5) Placement. The agency assumes the responsibility for the placement of all handicapped individuals accepted for vocational rehabilitation services.

The standards of the agency for determining that a client is suitably placed are:

(a) That the work performed is consistent with the client's physical, and mental capacities, interests, and personal characteristics.

(b) That the client possesses or has acquired necessary skills to perform the work successfully.

(c) That the work has reasonable permanency.

(d) That working conditions will neither aggravate the client's disability nor jeopardize the health or safety of others.

(e) That the employment provides reasonable maintenance for the client and his de-

pendents at the highest economic level he can reasonably obtain.

(f) That if not employed full time, the employment is consistent with the client's capacity to work and produce.

(g) That the wage and working conditions conform with state and federal statutory requirements.

In each case there will be a reasonable period of follow-up after placement to assure that the vocational objective of the client has been achieved.

1.11(6) Tools, equipment, initial stocks and supplies, occupational licenses. Tools, equipment, initial stocks and supplies, including livestock, will be provided, as needed, in the individual case, for the operation of a business or agricultural enterprise or the pursuit of a trade, occupation, or profession by eligible clients. Tools, equipment, initial stocks and supplies will be supplied in such quantity and will be of such quality so as to give reasonable assurance of successful operation of the enterprise, performance in the occupation, or practice of the profession.

Guides and standards governing quality and quantity are developed as necessary with appropriate professional, trade, business training, and other organizations and institutions.

1.11(7) Other goods and services. The agency will provide a client with other goods and services as are necessary, such as an attendant or reader services. The necessary licenses to operate a profession or business for which the client was trained will be provided. In the case of licenses covering specific periods of time (such as cigarette licenses) in the controlled business enterprise program, the agency retains the right to prorate the cost monthly from the profits of the business.

1.12(93) Vending stands and other small businesses for severely handicapped individuals.

1.12(1) Persons to be served. In selection of an operator, the commission will permit no discrimination because of race, color, or creed. In order to be eligible for licensing as a stand operator, an individual must be blind according to the definition in 1.1(1) of this plan. Persons to be eligible do not have to be in economic need.

1.12(2) Policies governing the acquisition of equipment and initial stocks and supplies.

a. (1) The commission will assist blind persons in establishing any type of small business enterprise which seems feasible. Such small business enterprise will not be under the control of the commission, but will belong to individual blind persons except for vending stands as provided hereafter in this section. (2) The commission will provide suitable vending stands and equipment for the location selected. Adequate initial stocks of merchandise also will be purchased for the use of the operator.

b. The location for vending stands shall be selected after it has been determined that the establishment of such an enterprise in that particular location will contribute to the maximum development of opportunities for the operator. The determination of the commission shall be made upon the basis of established criteria and after an evaluation of all relevant facts disclosed as a result of the comprehensive survey of that particular location. The criteria for the evaluation of the location shall take into consideration such factors as population, traffic, continued availability, and type of premises.

c. Ownership of all assets of the program will be maintained by the commission. The right, title, and interest in automatic coin machines are vested in the commission. However, if at any time any operator of a vending stand indicates a desire to purchase the equipment and stock of the stand and become an independent owner-operator, then the commission will immediately adopt rules which will permit such purchase and which will conform to the federal law and regulations.

1.12(3) Policies of management and supervision. The responsibility for the management and supervision of the vending stands will be vested in the commission.

No public or private agencies are used by the commission in the program.

No set-aside funds will be taken from the proceeds of vending operations, except that the operator may be required to participate in the cost of purchasing new equipment for their stands or the cost of repair or replacement of equipment.

1.13(93) Hearings on applicant's appeals. If an applicant or client is aggrieved by an action or inaction on the part of the counselor to whom the case has been assigned, the counselor shall inform the applicant or client of his right to a hearing before the members of the commission. The applicant or client shall set forth his complaints in writing and with a request for a hearing, submit them to the director of the commission, who in turn will present them to the members of the commission immediately. The commission, within five days of the presentation of the case, will notify the individual in writing of the time for the hearing. The applicant or client shall appear in person, or he may be represented by counsel, or he may appear in person with counsel. After hearing all testimony, the commission shall take the evidence under consideration and notify the applicant or client within five days after the hearing of the decision. The decision of the commission shall be final.

1.14(93) Rules governing the vending stand program.

1.14(1) Issuance and conditions of licenses.

a. In issuing licenses to operate vending stands, the commission will make no discrimination because of sex, race, color or creed.

Preference shall be given to blind persons who are in need of employment, and to those who have resided within the state of Iowa for a period of at least one year. Licenses will be issued only to persons who are determined by the commission to be:

(1) Blind as defined in section 403.1(p) of the federal regulations issued pursuant to the Vocational Rehabilitation Act (29 U.S.C. Ch 4;

(2) Citizens of the United States;

(3) At least twenty-one years of age; and

(4) Certified by the commission's rehabilitation division as qualified to operate a vending stand.

b. Licenses will be issued for an indefinite period but subject to termination if, after affording the operator an opportunity for a fair hearing, the commission finds that the vending stand is not being operated in accordance with its rules, the terms and conditions of the permit, or the agreement with the operator.

c. The income from the vending machines within reasonable proximity to and in direct competition with the vending stand will be assigned to the operator. A vending machine shall be considered to be in reasonable proximity to and in direct competition with the stand if it vends articles of a type authorized by the permit, and is so located that it attracts customers who would otherwise patronize the vending stand.

1.14(2) Termination of licenses. Any license to an individual for the operation of a vending stand on federal or other property may be terminated when the commission finds that the vending stand is not being operated in accordance with its rules, the terms and conditions governing the permit, or the agreement with the operator.

1.14(3) Fair hearing for operators. An opportunity for a fair hearing will be afforded to any operator dissatisfied with any action arising from the operation or administration of the vending stand program. The following stipulations shall be included in the procedure for such hearing:

(The word "operator" includes the personal representative or next of kin in a hearing relative to the determination of the amount to be paid by the commission for an operator's ownership in the stock and equipment, in the event of the death of an operator.)

a. An operator shall have the right to be represented at the hearing by counsel or by a friend;

b. Hearings shall be held within a reasonable time after request therefor and at a time and place reasonably convenient to the operator;

c. The operator shall have an adequate opportunity to present his case, and for cross-examination;

d. The hearings shall be held before a three-member panel composed of

(1) One member selected by the operator requesting the hearing,

(2) One member selected by the commission representative involved in the action under question, and

(3) One member, who shall automatically become the panel chairman, selected by the first two members;

e. The decision shall be based upon the information adduced at the hearing, and the decision of the panel shall be final. A verbatim transcript of the testimony and exhibits (or an official report containing the substance of what transpired at hearing) together with all papers and reports filed in the proceedings shall be available to the operator and to the commission;

f. The decision shall be in writing and shall set forth the issue, the relevant facts brought out at the hearing, the pertinent provisions in law and agency policy, and the reasoning that led to the decision. The operator and the commission shall be furnished copies of the decision immediately upon its issuance;

g. The decision shall constitute the official action of the commission in relation to the action which was the subject of the hearing.

1.14(4) Furnishing equipment and initial stock. The commission shall be responsible for (a) furnishing each vending stand with adequate, suitable equipment and for the maintenance and repair of such equipment, and (b) for furnishing each vending stand with adequate initial stock of merchandise.

1.14(5) Right, title to and interest in vending stand equipment and stock. The right, title to and interest in vending stand equipment and stock used in the program is vested in the state commission for the blind, except that if at any time any operator of a vending stand indicates a desire to become an independent owner-operator and purchase the equipment and stock of the stand he is operating, then the commission will immediately adopt rules which will permit such purchase, and which will conform to the federal law and regulations.

1.14(6) Funds set aside from vending stand proceeds. No funds will be set aside from the proceeds of the vending stand operation, except that the operator may be required to participate in the cost of purchasing new equipment for their stands or the cost of repair or replacement of equipment.

1.14(7) Policies governing the duties, supervision, transfer and participation of operators. The proceeds of the operation of each stand shall accrue to the operator after paying operating costs.

Each vending stand operator shall agree to:

a. Perform faithfully and to the best of his ability the necessary duties in connection with the operation of the vending stand in accordance with the commission's rules,

and standards issued pursuant thereto, the terms of the permit, and the agreement with the operator.

b. Co-operate fully with officials and duly authorized representatives of the commission in connection with their official program responsibilities.

c. Operate the vending stand in accordance with all applicable health laws and regulations.

d. Furnish such reports as the commission may from time to time require.

1.14(8) Supervision of operators. The commission will provide to each operator regular and systematic supervision and in-service training in the keeping of accounts, the selection and purchase of suitable merchandise, the maintenance of a clean and attractive location, and the adoption and utilization of sound business practices and methods, to assure the greatest possible financial return to the operator and to preserve the employment opportunities for the use of successive blind persons.

1.14(9) Transfer of operators. When a vacancy occurs the operator who has demonstrated business and managerial ability will be considered for promotion to the more profitable stand, if he so desires.

Other factors which will be given consideration relative to transfer include: Proximity of location of stand to residence of operator, family conditions, health of operator, or other pertinent data believed to be to the advantage of the operator or necessary for the success of the stand.

1.14(10) Explanation to operator of his rights and responsibilities. The commission shall furnish to each operator a copy of these rules, and a description of the arrangements for providing services to him, which shall be read to and explained to him to assure that he understands the provisions of such documents and the provisions of the permit and any agreements under which he operates, as evidenced by his signed statement.

AGREEMENT BETWEEN THE COMMISSION FOR THE BLIND AND THE OPERATOR OF A VENDING STAND

In compliance with such laws and with the rules and regulations required to be issued by the commission to govern and apply to all vending stands now operating or to be established under the program, this agreement is entered into by and between, the operator of a vending stand, located at in, Iowa and the Iowa commission for the blind.

This agreement, executed on, 19...., replaces and supersedes any and all previously executed agreements between the operator and the commission, concerning the operation of the vending stand.

In accordance with the provisions of the above laws, rules and regulations, and in order

to provide the greatest possible financial return to the operator and to preserve and promote employment opportunities for other blind persons, the following standards of operation and service are included and made a part of this agreement:

1. Insofar as is reasonable and advisable the operator will conduct the vending stand as an individual business.

2. The operator will maintain a stock of merchandise equivalent to that provided by the commission.

3. The operator will confer with the commission regarding the selection of additional items or lines of merchandise and their source of supply, but will do his own buying.

4. The operator will conduct the business on a cash basis—paying cash for goods and supplies, and shall not extend credit to his customers.

5. The operator will employ sound business practices including the taking of regular inventories of merchandise, in accordance with the policy of the commission, and may request assistance from the commission in so doing when and if help is needed.

6. The vending stand shall be in operation during the hours the building in which it is located is open for business. If this exceeds a reasonable day, the operator may employ an assistant or may make arrangements with the commission for times during the day when the stand may be closed.

7. The assistants employed by the operator should receive a fair and reasonable rate of pay, and shall have the approval of the commission. Insofar as is reasonable and to the best interest of the operator and the stand, employment should be given to the visually handicapped.

8. The operator will co-operate fully with officials and duly authorized representatives of the commission in connection with their official program responsibilities.

9. The operator will make any and all such reports as may be required by the commission.

10. The operator will perform faithfully and to the best of his ability the necessary duties in connection with the vending stand in accordance with the standards prescribed by the commission and in order to create a favorable acceptance of the vending stand program by the general public.

11. The commission will furnish all reasonable supervision, consultation, in-service training in business operation and advise the operator on problems, which may be required for the successful operation of the stand.

12. It is understood that all right, title and interest to all vending stand equipment is vested in the commission, and the commission assumes responsibility for its repair, alteration, maintenance and replacement, and the operator will take no action which would impair such right, title and interest.

13. It is understood and agreed that if at any time the operator should desire to become

an independent owner-operator and to purchase the equipment and stock of the stand, the commission will immediately adopt rules and regulations which will permit such purchase.

14. It is further understood that at some future time the commission and the operator may enter into an agreement whereby the operator will assume, in whole or in part, responsibility for maintenance and replacement of equipment, if the operation of the stand becomes sufficiently profitable to warrant such an agreement.

15. If necessary, the commission will purchase such licenses and bonds for the operator as may be necessary for the operation of the stand with the understanding that the operator will pay to the commission the fees for same on a prorated monthly basis.

.....
Signature of Operator
Signed for the commission
.....
.....
(Title)
[Filed April 26, 1960]

CIVIL RIGHTS COMMISSION

CHAPTER 1

SEX-SEGREGATED WANT ADS

1.1(105A) Cease use.

1.1(1) All newspapers within the state of Iowa shall cease to use sex-segregated want ads—e. g. "Male Help Wanted", "Female Help Wanted", and "Male and Female Help Wanted" or "Men—Jobs of Interest", "Women—Jobs of Interest", and "Men and Women".

1.1(2) Any newspapers failing to comply with 1.1(1) shall be deemed in violation of the Iowa civil rights Act, sections 105A.7 and 105A.8, and legal proceedings shall henceforth be initiated against such newspaper.

1.1(3) The Iowa civil rights commission will regard any publication of sex preference for a job to be in violation of the Iowa civil rights Act and, therefore, suggests that all Iowa newspapers refrain from publishing any sex preference which an employer in its job order may want printed.

1.1(4) The Iowa civil rights commission suggests that Iowa newspapers, instead of using sex-titled, sex-segregated want ads, use neutral want ads, e. g. "Help Wanted", "Jobs of Interest", "Positions Available" or the like.

1.2(105A) Exception.

1.2(1) The Iowa civil rights commission recognizes that sex may, in very limited circumstances, be a bona fide occupational qualification, e. g. a woman to be a women's fashion model. Therefore an employer seeking to place a job order or want ad which shows sex preference, must, by affidavit, claim that such preference is based upon a bona fide occupational qualification.

1.2(2) The affidavit referred to in subrule 1.2(1) must set out the complete basis upon which the employer believes that a person of a particular sex is required for the job the employer wishes to fill. The affidavit must also clearly state that the employer truly believes the sex preference is bona fide and that the employer, and not the newspaper or publisher of the ad, is responsible for the content of the ad.

1.2(3) Any newspaper, or other publisher which prints want ads, can publish a want ad with a sex preference, if, and only if, that newspaper or publisher has received from the employer the affidavit referred to in 1.2(1) and 1.2(2). The newspaper or publisher, upon receipt of such affidavit, will submit a copy thereof, by mail or other convenient method, to the Iowa civil rights commission.

[Filed December 18, 1970]

COMMERCE COMMISSION

CHAPTER 1

RULES OF PRACTICE

1.1(474) Sessions of board.

1.1(1) The board of railroad commissioners of Iowa shall be considered in session at the office of the said board in Des Moines, Iowa, at all times; and at any time that a quorum of the said board shall be present shall be considered a session for considering petitions, informal complaints, applications and other communications, and also for considering and acting upon any business of the commission other than complaints.

1.1(2) There shall be held regular sessions at the office of the board in Des Moines during the week, commencing on the first

Tuesday of each month, except in the months of July and August, for considering and hearing and acting upon informal complaints.

1.1(3) There shall also be held at its office in Des Moines regular sessions of the board, commencing on the second Tuesday of each month, except in the months of July and August, for the hearing, considering and acting upon formal complaints and contested cases.

1.1(4) Special sessions may be held at other times at the office of the board at Des Moines and at other places in this state when dates for the same shall have been set by the said commission, or at any other time when the entire board is present.

1.1(5) Sessions of the board to revise or change classifications, and schedules of rates

wherein notice is required by publication in two weekly newspapers as required by law, shall be held twice each year on the first Tuesday in April and October. If any day designated for any of the sessions shall fall upon an election day or legal holiday then the same shall be held upon the second succeeding day thereafter.

1.2(474) Informal complaints. Informal complaints are those presented to the commission which may be taken up by the commission and adjusted by correspondence through the secretary without requirement of service of notice or fixing any special date for hearing. But if such action fails to result in the adjustment of the informal complaint to the satisfaction of all parties thereto, then the said secretary shall refer the matters to the commerce counsel for investigation by him and presentation to the board for its determination of the issues involved. If, in the judgment of the board, it seems necessary, or if either party to the said matter makes a written request for the same, a hearing of said matters shall be held before the board at its office in Des Moines at one of its regular sessions as hereinbefore provided. In the event that such formal hearing is desired, a formal complaint shall be prepared by the party complaining or by the commerce counsel, and same shall be filed and proceedings had as provided for formal complaints.

1.3(474) Formal complaints. All complaints other than these defined as informal complaints must be by petition printed or written, or partly printed and partly written, setting forth briefly the facts claimed to constitute a violation of the law and the relief demanded, and which complaint must be filed by a party in interest and may be filed by any person in his own behalf or in behalf of a class of persons similarly situated, or a firm, corporation, association, or any mercantile, agricultural or manufacturing society or any body politic or municipal organization, and in which complaint the name of the carrier or carriers complained against must be stated in full and the address of the petitioner, and if presented by an attorney, with the name and address of the attorney or counsellor, which must appear upon the petition. The complainant must furnish as many copies of the petition as there may be parties complained against to be served, and four additional copies for the use of the commission and commerce counsel.

1.4(474) Service of notice. The commission will cause a copy of the petition or complaint to be served upon defendant railway company or companies with notice to satisfy or answer the same at the regular session for such hearings, and as stated in said notice. It may be served personally or by mail in the discretion of the commission, and such service of notice must be had and served twenty days prior to the next regular session of the board for the hearing of formal complaints and contested matters, provided said petition shall be filed

twenty days before said date. If not, then such notice must be served twenty days prior to the next succeeding regular session.

1.5(474) Answers. The carrier or carriers complained against must answer such complaint at least five days before the first day of the session of which due notice has been given, unless further time shall be granted by the commission for the filing of such answer. The answers must be filed with the secretary of the commission at its office in Des Moines. The answer must specifically admit, deny, or otherwise answer all material allegations of the petition and also briefly set forth the affirmative grounds relied upon to support such answer. If the defendant shall make satisfaction before answering, a written statement thereof must be filed both by the complainant or petitioner and the carrier or carriers complained against.

1.6(474) Demurrer. Any defendant who deems the petition of complaint insufficient to show a breach of legal duty may, instead of answering, demur thereto. And in such case the facts stated in the petition will be deemed admitted. A copy of the demurrer must at the same time be filed with the secretary of the commission. The filing of the answer, however, will not be deemed an admission of the sufficiency of the petition. Nor will the ruling on the demurrer be considered as a final adjudication of the questions raised by the demurrer; and no petition shall be held sufficient, on account of the failure to demur thereto, but a motion to dismiss for insufficiency may be made at the hearing.

1.7(474) Amendments. Amendments to any petition or answer to any proceeding or investigation may be allowed by the commission at its discretion.

1.8(474) Extension of time. Extension of time may be granted upon the application of any party to a proceeding at the discretion of the commission.

1.9(474) Service of papers. The notice or other papers which are required to be served upon the adverse party or parties may be served personally or by mail and when any party has appeared by attorney, such service upon the attorney shall be deemed proper service upon the party.

1.10(474) Stipulations. The parties to any proceeding or investigation before the commission may, by stipulation in writing filed with the secretary, agree upon the facts or any portion thereof involved in the controversy, which stipulation shall be regarded as evidence on the hearing.

1.11(474) Formal hearings.

1.11(1) The complaint or petition shall be heard at the office of the commission in Des Moines unless otherwise ordered. The witnesses may be examined orally before the commission, their testimony taken down and

filed in the case, or depositions may be taken upon the notice as prescribed for the taking of depositions in the district courts of this state, and upon any stipulation made and upon documentary evidence pertinent to the questions at issue. The complainant must establish the facts alleged to constitute a violation of the law or entitle him to the relief prayed, unless the defendant admits the same or fails to answer the petition, or where the burden of proof is by statute placed upon the defendant. In case of a failure to answer, the commission will take such proof of the facts as may be deemed proper and reasonable. Oral arguments may be had by the parties with right to the commission to limit the time thereof and either party may have the right to furnish briefs, and if briefs are filed they must be either printed or type-written, and copies thereof served upon the opposite party, and such briefs filed within the time fixed by the commission.

1.11(2) In all contested cases the petitioner will open and close the case. Each party to the hearing will be allowed to introduce such evidence as is admissible under the general rules of evidence in the district courts of the state of Iowa and such other evidence as in the judgment of the commission may be pertinent, material and admissible and in the hearing of such cases the commission will be governed by the rules and practices which obtain in the district courts of the state of Iowa, so far as the same are applicable and as herein provided.

1.12(474) Rehearings. Applications for reopening a case after final submission, or for rehearing after decision made by the commission, must be by petition, and must state specifically the grounds upon which the application is based. If such application be to reopen the case for further evidence, the nature and purpose of such evidence must be briefly stated, and the same must not be merely cumulative. If the application be for a rehearing, the petition must specify the findings of fact and conclusions of law claimed to be erroneous, with a brief statement of the grounds of error; and when any decision, order, or requirement of the commission is sought to be reversed, changed, or modified on account of facts and circumstances arising subsequent to the hearing, or of consequences resulting from compliance with such decision, order, or requirement which are claimed to justify a reconsideration of the case, the matters relied upon by the applicant must be fully set forth.

1.13(474) Transcripts of records. The testimony in hearings before this board shall be taken by a shorthand reporter appointed by the board. The said shorthand notes shall be translated into longhand only on direction of the board of railroad commissioners, and such shorthand notes, extension or translation of the same, together with all exhibits offered in evidence, shall be filed with and become a

part of the record. The board does not furnish copies of such extension or translation of said notes, or exhibits, but in the event that either party shall desire a copy thereof, the same will be furnished by the reporter, on application, at a rate not exceeding the legal rates authorized by law.

1.14(474) Subpoenas. Subpoenas shall be issued by the secretary of this board under seal of the board at the request of either party to any complaint or hearing, requiring the attendance of witnesses or the production of evidence, as provided by statute.

1.15(474) Information furnished. The secretary of the commission will, upon request, furnish information from the files of the commission as will conduce to the proper presentation of facts material to the controversy, and the commerce counsel will, upon request, advise any party as to the form of petition, answer or other paper necessary to be filed in any case.

[Filed prior to July 4, 1951]

CHAPTER 2

CONSTRUCTION AND OPERATION OF ELECTRIC SUPPLY AND COMMUNICATION LINES

2.1(489) Safety rules for the installation and maintenance of electric supply and communication lines. The National Bureau of Standards "Safety Rules for the Installation and Maintenance of Electric Supply and Communication Lines, comprising Part 2, the Definitions, and the Grounding Rules of the Sixth Edition of the National Electric Safety Code" as "approved by American Standards Association, June 8, 1960, as American Standard C2.2-1960 (UDC 621.316.9)" and as "Reprinted July 1, 1963, with correction on page 92" as hereafter modified, are hereby adopted as standard minimum requirements for the installation and maintenance of overhead and underground electric supply and communication lines in the state of Iowa, provided, however, that this rule shall not apply to electrical facilities which are in existence upon the effective date of this rule in conformance with the requirements of the order of the Iowa state commerce commission issued in Docket E-5248 dated February 10, 1942, and are hereafter continuously maintained in conformance with the provisions of said commission order.

2.1(1) The first sentence of rule 232, B is changed to read: "Greater clearances than specified in table 1 (rule 232, A) shall be provided where required by 1, 2, 2.5 and 3 below."

2.1(2) The following new rule designated as 232, B, 2.5 is added and inserted between rules 232, B, 2, and 232, B, 3: "Conductors Operated at Temperatures in Excess of 120° F. Under these conditions the clearances given in table 1 (rule 232, A) shall be increased by the difference between final unloaded sag at 120° F., no wind, and the final unloaded sag

at the maximum temperature at which the conductor will operate, no wind, both sags calculated for the crossing span."

2.1(3) The second sentence of rule 233, B, is changed to read: "The increase in 1, 2, 2.5 and 3 below are cumulative where more than one are applicable."

2.1(4) The following new rule designated as 233, B, 2.5 is added and inserted between rules 233, B, 2 and 233, B, 3: "Conductors Operated at Temperatures in Excess of 120° F. Under these conditions the clearances given in table 3 (rule 233, A) shall be increased by the difference between final unloaded sag at 120° F., no wind, and the final unloaded sag at the maximum temperature at which the conductor will operate, no wind, both sags calculated for the crossing span."

Notwithstanding anything foregoing all electric supply and communication lines shall conform to the requirements of chapter 489 of the Code pertaining to distance from buildings and crossing of railroads and all other applicable requirements of the Code without exclusion because of specific enumeration herein.

The standard minimum requirements for the installation and maintenance of overhead and underground electric supply and communications lines herein adopted together with the provisions of chapter 489 pertaining to distance from buildings and crossing of railroads, all other applicable requirements of the Code and any rules issued by the commerce commission to supplement the aforesaid standard minimum requirements may be referred to collectively as the "Iowa Electrical Safety Code."

2.2(489) Special situations. Matters not coming within the provisions of these rules, or to which these rules cannot be made applicable will be given separate consideration by the commission. For good cause shown the commission may permit deviation from any rule or requirement thereof and adopt another requirement in a special case.

2.3(489) Petition for franchise. A petition for franchise to construct, operate and maintain an electric supply line, outside the corporate limits of cities and towns, for the transmission, distribution, use and sale of electric current, shall set forth the following:

1. The name of the individual, company, corporation, city or town asking for the franchise.
2. The principal office or place of business of the petitioner.
3. The starting points, routes and termini of the proposed lines, accompanied by copies of two maps or plats showing such details.
4. A general description of the public or private lands, highways, and streams over, across or along which any proposed line will pass.
5. General specifications as to materials and manner of construction.

6. The maximum voltage to be carried over each circuit.

Common use construction—Where two or more electric supply lines are to occupy the same highway, all electric supply circuits shall be attached to the same or common line of poles unless the Iowa state commerce commission authorizes construction of separate pole lines.

2.4(489) Petitions for authority to increase the operating voltage or attach an additional electric supply circuit.

2.4(1) No individual, company, corporation, city or town shall increase the operating voltage of an existing electric supply circuit, or attach an additional electric supply circuit to an existing electric supply line, for the transmission, distribution, use and sale of electric current for lighting, power and heating purposes, which is located upon public highways or grounds outside the corporate limits of cities and towns in the state, without first procuring from the Iowa state commerce commission a certificate granting authority for this improvement.

2.4(2) Any individual, company or corporation authorized to transact business in the state, including cities and towns, may file a verified petition asking for authority to increase the operating voltage of an existing electric supply line, or to attach an additional electric supply circuit to an existing electric supply line, for the transmission, distribution, use and sale of electric current for lighting, power and heating purposes outside the corporate limits of cities and towns in the state.

The petition shall set forth the following:

- a. The name of the individual, company, corporation, city or town asking for the certificate.
- b. The principal office or place of business of the petitioner.
- c. A general description of the public or private lands, highways, and streams over, across or along which the existing electric supply line is located.
- d. Two maps on which shall be shown the starting point, route and terminus of the proposed improvement. These maps shall show the same information as is required on maps with a petition for franchise, as is provided in this order.
- e. General specifications as to the material used in the existing electric supply line and materials which will be used in constructing the proposed improvement and the manner of construction.
- f. The maximum voltage carried over the existing electric supply circuit and the maximum voltage to be carried over the proposed improvement.
- g. The name and address of the individual, company, corporation, city or town to whom the franchise was granted to construct, operate and maintain the existing electric supply line and the date when the franchise was issued.

2.5(489) Maps to be filed with petition. Maps accompanying a petition shall be drawn to a scale of one inch per mile, must be of a permanent nature and shall show the following:

1. The starting point, route and terminus of the proposed electric supply line.
2. Highways shall be indicated by a single solid line.
3. The side of a section which is not bounded by a highway shall be indicated by a single broken line.
4. The number of each section.
5. Township and range numbers shall be indicated on each side of the map.
6. The margin or side of the highway on which the proposed electric supply line will be located.
7. The voltage of the proposed electric supply line shall be designated, and in a petition for franchise where the proposed line will be constructed with more than one circuit, the voltage of each circuit shall be designated.
8. Fractional miles of proposed electric supply line shall be indicated by scale.
9. The boundary limits of villages and subdivisions of land as platted, and the corporate limits of cities and towns shall be indicated on the maps.
10. The margin or side of the highway on which electric supply and communication lines are located that will be paralleled or crossed by the proposed electric supply line, and the location of all railroad rights of way, which will be crossed or paralleled in close proximity thereto, by the proposed electric supply line.
11. The number of (a) communication wires which will be crossed, paralleled by or in joint use with the proposed electric supply line, with the name and address of the owners of such communication lines; (b) electric supply lines, stating the operating voltage of each circuit, which will be crossed or paralleled by the proposed electric supply line, with the name and address of the owners of such electric supply lines; and (c) the name and address of the owners of railroad rights of way which will be crossed or paralleled in close proximity by the proposed electric supply line.

2.6(489) Notice to owners of land and others. Where a petition for a franchise to erect, operate and maintain an electric supply line for the transmission, distribution, use and sale of electric current, seeks to use lands other than highways (except where easements have been acquired) petitioner shall, in addition to statutory notice of hearing, give notice in writing of the time and place of such hearing to the owners of record and the parties in possession of the lands, by either registered or certified United States mail, addressed to their last known address, which notice shall be mailed no later than five days after the date of second publication of the official notice of

hearing concerning the petition. Not less than five days prior to the date of hearing, the petitioner shall file with the Iowa state commerce commission, post-office receipt for either registered or certified articles bearing its registry or certificate number showing mailing of said notice as provided herein.

2.7(489) Notice of construction, major operating or circuit change of an electric supply line.

2.7(1) Advance notice. Each individual, company, corporation, city or town filing a petition with the Iowa state commerce commission for a franchise to construct, operate and maintain an electric supply line shall give notice in writing, accompanied by a map showing the route of the proposed electric supply line to interested parties who will be involved in a crossing or parallel on the same highway or in close proximity thereto. One copy of each letter of notification or a written statement showing the name, address and date of letter, shall accompany the petition when it is filed with the Iowa state commerce commission.

2.7(2) In a situation where an additional electric supply circuit is to be added, or the operating voltage is to be increased on an existing electric supply line, or major operating or circuit change is to be made on an existing electric supply line, a written notice and map shall be given to all interested parties at the time when the petition for authority to make such an improvement is filed with the Iowa state commerce commission.

2.7(3) Advanced notice on deferred construction. In a situation where a proposed electric supply line is not constructed within six months from the date of granting the franchise or the additional circuit is not attached or the voltage is not increased on an existing electric supply line within six months from the date of granting the certificate for such an improvement, then the party holding the franchise or certificate shall again notify in writing all interested parties not more than sixty days and not less than seven days before construction will start on the improvement.

2.8(489) Reporting accidents.

2.8(1) Any person, company, corporation, city or town operating electric supply lines which are located outside the corporate limits of cities and towns, shall report in writing to the Iowa state commerce commission, all accidents to employees or other persons resulting in fatalities or second or third degree burns involving several areas or an extensive area of the body surface caused by contact with energized parts of an electric supply line, and fatal accidents or fractures, dislocations or internal injuries resulting from a fall or from other cause, and such written report shall indicate the following information:

a. The name, address and age of the person or persons involved in the accident.

b. The time and place where the accident occurred.

c. The cause of the accident in detail.

d. The name of the individual, company, corporation, city or town operating the electric supply line.

2.8(2) A written report of the accident shall be filed in the office of the Iowa state commerce commission within forty-eight hours of the time the accident occurred.

2.9(489) Joint use lines supporting electric supply and communication circuits. In situations where the Iowa state commerce commission has jurisdiction and it is mutually agreeable between both the electric supply and communication companies, communication circuits may be attached to electric supply lines, provided an agreement in writing signed by an authorized representative of the communication company has been filed with the electric supply company to the effect that the communication company will comply with the rules of the National Electrical Safety Code covering joint use construction applicable to the situation, or situations, covered in said written agreement.

2.10(489) Operation and co-ordinative methods applicable to electric supply systems.

2.10(1) General.

a. These general rules for operation, co-ordination and co-operation shall supplement the "Iowa Electrical Safety Code" as defined in 2.1(479) foregoing.

b. The means of avoiding or reducing inductive effects such as are outlined below shall be applied in each case insofar as is practicable for the sufficient reduction of inductive interference. In case the parties of interest shall, in any case, fail to agree upon the application of these means to a specific case the matter shall be referred to the Iowa state commerce commission.

2.10(2) Location of lines.

a. Location of electric supply lines.

(1) Electric supply lines and communication lines shall be located on opposite sides of the highway and separated as far as practicable within highway limits. When electric supply and communication lines are located on private rights of way the horizontal separation shall, if practicable, be of such distance that no structure conflict will be created. In the event it is not practicable to obtain such a separation when these lines are on private rights of way and the parties involved can reach an agreement with regard to the conflict or joint use of poles, no further action is necessary. In the event no agreement can be reached the matter shall be referred to the Iowa state commerce commission.

(2) Electric supply lines shall be constructed on one side of the highway so that the other side of the highway may be used by communication lines, except as otherwise ap-

proved by the Iowa state commerce commission.

(3) Crossings from side to side of a highway should be avoided as far as practicable.

b. Recommended location of communication lines.

(1) It is recommended that communication companies furnish pertinent data regarding new construction and major improvements of communication lines to companies operating electric supply lines involved in crossings, conflicts and inductive exposures.

(2) Communication lines should be constructed on one side of the highway so that the other side of the highway may be used by electric supply lines.

(3) Crossing from side to side of a highway should be avoided as far as practicable.

2.10(3) Avoidance of parallels. The route of a proposed electric supply line shall be selected, where reasonable and practicable, so as to avoid creating parallels with long distance communication lines, even though this will necessitate a reasonable increase in the initial construction cost of the electric supply line.

2.10(4) Relocating a communication line. When an electric supply line is to be constructed in a location occupied by a communication line, the expense of relocating the communication line shall be borne by the electric supply company. The electric supply company shall not be required to pay any part of the used life of the communication line, but shall pay only the net nonbetterment expense of relocating the communication line.

2.10(5) Apportionment of expenses. The expense to be paid by an electric supply company whose line is, or will be, involved in a crossing, conflict, parallel or inductive exposure with a communication line, in order to reduce a hazard or inductive interference (except for changes to be made in a ground return telephone circuit to mitigate inductive interference) shall be in accordance with the rules of the Iowa state commerce commission; but in case the parties involved cannot agree as to the expense which should be paid by the electric supply company then the same shall be referred to the Iowa state commerce commission for determination.

2.10(6) Definitions. For the purpose of these rules, the following terms are used with meanings as given in these definitions:

Inductive co-ordination. The location, design, construction, operation and maintenance of electric supply and communication systems in conformity with harmoniously adjusted methods which will prevent inductive interference.

Physical co-ordination. The location, design, construction, operation and maintenance of electric supply and communication systems in conformity with harmoniously adjusted methods which will prevent physical interference.

General co-ordinative methods. Those methods reasonably available for general application to electric supply or communication systems which contribute to physical and inductive co-ordination without specific consideration to the requirements for individual exposures.

Specific co-ordinative methods. Those additional methods applicable to specific situations where general co-ordinative methods are inadequate.

Inductive exposure. A situation involving electric supply and communication circuits where the conditions are such that inductive co-ordination must be considered.

Inductive interference. An effect due to the inductive influence of an electric supply system, the inductive susceptiveness of communication system, and the inductive coupling between the two systems, of such character and magnitude as to prevent the communication system from rendering satisfactory and economical service.

Inductive influence. Those characteristics of an electric supply circuit with its associated apparatus that determine the character and intensity of the inductive field which it produces.

Inductive susceptiveness. Those characteristics of a communication circuit with its associated apparatus that determine the extent to which its operation may be affected by inductive influence.

Coupling. The interrelation of electrical circuits by electric or magnetic induction, or both, or by conduction through a common earth path, or by combinations thereof.

Physical exposure. A situation involving electric supply and communication facilities where the conditions are such that physical co-ordination must be considered.

Physical interference. A condition arising from the physical relationship of electric supply and communication facilities which by reason of the possibility of contacts or conduction between the respective facilities, or by reason of their proximity, prevents the safe and economical operation of either system.

Conflicts or conflicting construction. Situations where two separate pole lines parallel each other in close proximity under conditions defined more specifically in the National Electrical Safety Code.

Discontinuity. A point at which there is an abrupt change in the physical relations of electric supply and communication circuits or in electrical constants of either circuit.

Transpositions are not rated as discontinuities, although technically included in the definition, because of their application to co-ordination.

Transposition. A transposition is an interchange of the position of conductors of a circuit between successive lengths.

Metallic communication circuit. A metallic communication circuit is a circuit in which

the current flows in adjacent metallic conductors and ground connections are not used except through relatively high impedances for protection or signaling.

Ground-return circuit. A ground-return circuit is a circuit which has a metallic conductor between two points and the circuit is completed through the ground or earth.

Parallel. Parallel means a situation where an electric supply line and a communication line follow substantially the same route and create an inductive exposure, but the horizontal separation between these lines is of sufficient distance so that no conflict is created.

Interested parties. Interested party means any individual, company, corporation, city, town or railroad company operating electric supply lines, communication lines or line of railroad tracks which will be involved in a crossing, parallel, inductive exposure or conflicting situation on the same highway or in close proximity thereto or upon private rights of way on account of the construction of a proposed electric supply line or a major change in construction or operating features of an existing electric supply line.

GENERAL CO-ORDINATIVE METHODS

2.10(7) Residual currents and voltages. Residual currents returning in the earth or by remote metallic paths, and residual voltages, shall be limited as far as practicable.

Unsymmetrical loads, which give rise to such residual currents and voltages, shall be avoided as far as practicable.

2.10(8) Discontinuities. Discontinuities shall be limited to the number required by the conditions.

2.10(9) Insulation. The insulation of electric supply lines and equipment shall be in accordance with good modern practices.

2.10(10) Operating and switching. In all switching operations, care shall be taken to limit the production of transient disturbances.

Care shall be taken to avoid re-energizing a faulted circuit at normal voltage an excessive number of times even if done in order to locate or clear the fault. This does not preclude reclosing a circuit breaker several times immediately following a circuit breaker operation.

2.10(11) Connections. Care should be taken to avoid contact resistance which might increase the inductive influence.

2.10(12) Lines.

a. In order to limit the residual currents and voltages arising from line unbalances, the resistance, inductance, capacitance and leakage conductance of each phase conductor of a circuit in any section shall be as nearly equal as practicable to the corresponding quantities in the other phase conductors in the same section.

Induction motors and generators shall be selected so that their harmonic voltages and currents, as far as practicable, will not increase

the inductive influence of the system to which they are connected. Care should be taken in the selection and use of rotating machinery to obtain, as far as necessary and practicable, electrical balance.

b. Rectifiers, arc furnaces and other apparatus. Rectifiers, arc furnaces and other apparatus which distort the voltage or current wave form of an electric supply circuit involved in an inductive exposure, shall be equipped when and as necessary and practicable with suitable auxiliary apparatus to mitigate such distortion.

c. Capacitors. When capacitors are connected to an electric supply circuit or circuits, consideration shall be given to their location and effect on power system influence in an inductive exposure.

d. Transformers. In order that the wave form of voltage and current may be affected as little as practicable by transformers, such apparatus shall be so designed as not to require operation at excessive magnetic densities. In the installation, connection and operation of transformers, care shall be taken to avoid the use of normal voltages in excess of rating that would result in excessive magnetizing currents.

Where a three-phase electric supply circuit is connected to the wye-connected windings of transformers with grounded neutral, or to wye-connected auto-transformer with grounded neutral, consideration shall be given to the use of stabilizing windings (tertiary) or other suitable means for adequately limiting the triple harmonic components of residual currents and voltages.

Care shall be taken that the individual units in each bank of transformers, operated with a grounded neutral and connected to a three-phase supply circuit are substantially alike as to electrical characteristics and that they are similarly connected.

e. Circuit breakers. Each circuit breaker controlling the supply of electric energy to transmission circuits shall have all of its poles arranged for gang operation, except when arranged for rapid opening and reclosing of a single phase to clear a phase to ground fault.

These circuit breakers shall be automatic for short-circuits between phases and, in the case of systems operating with a grounded neutral, from phase to ground. They shall be of a type which will disconnect the faulty circuit in as short a time as practicable.

f. Protective apparatus. Protective apparatus shall be such that it will not unnecessarily add to transient disturbances and shall, as far as practicable, avoid or limit such transient disturbances.

g. Ground connection (except those employed as return in connection with electric traction systems). Ground connections if employed on apparatus connected to electric supply circuits, shall be made at balanced or neutral points. This precludes the use of ground return electric supply circuits.

SPECIFIC CO-ORDINATIVE METHODS

The specific practices which follow are to be used, insofar as may be necessary and practicable, in situations requiring inductive or physical co-ordination, in addition to the general practices.

It is not intended that all of these practices should be applied in any specific case. In each instance that practice or those practices shall be selected, which, in combination with the methods that are to be applied to the communication facilities, will afford the best engineering solution.

The conductivity of a multigrounded neutral conductor of an electric supply circuit shall be adequate for the load which it is required to carry. The conductivity of a multigrounded neutral conductor of a single phase electric supply circuit shall not be less than sixty per cent of that of the phase conductor with which it is associated. In no case shall the resistance of such neutral conductor exceed three and six-tenths ohms per mile. (This does not modify the mechanical strength requirements for conductors as provided in the National Electrical Safety Code.)

In an inductive exposure involving communication or signal circuits and equipment where the controlling frequencies are three hundred sixty cycles or lower, the neutral conductor shall have the same conductivity as the phase conductor with which it is associated.

Some of the methods and means for limiting unbalance in lines are described below:

a. Configuration. Where there is a choice between two or more configurations of a circuit or a group of circuits, that configuration shall, where practicable, be chosen which will provide the superior balance.

b. Phase arrangement. Certain phase arrangements of multiple circuit lines that are especially effective in reducing the inductive influence shall, where practicable, be employed.

c. Transpositions. The capacitances and inductances of the phase conductors of a circuit shall be suitably balanced by transpositions, as far as necessary and practicable.

d. Branch circuits. Where branch circuits employing less than the total number of phases are to be used, they shall, where practicable, be so planned as not to give rise to excessive residual current returning in the earth or by remote metallic paths, or to excessive residual voltages. Distributing the branch circuits among the phases of the main circuit so as to obtain as nearly as practicable equality of their lengths and loads throughout the main circuit, will aid in accomplishing this result.

2.10(13) Three-phase, four-wire circuits with multigrounded neutral. On three-phase, four-wire circuits with multigrounded neutral, single-phase and open-wye loads shall be limited in size and distributed among the phases to limit, as far as necessary and practicable, the unbalanced load current.

2.10(14) Overhead ground wire. Where overhead ground wires are to be installed on electric supply lines, consideration shall be given to the utilization of such kind and size of wire as will aid in providing the most satisfactory co-ordination. Frequently those characteristics which are beneficial from a co-ordination standpoint, during abnormal conditions on the electric supply line have adverse effects during normal operating periods. Therefore, the relative importance of both normal and abnormal effects must be considered in each installation.

2.10(15) Apparatus—rotating machinery. Synchronous machines shall be specified and selected so as to have a wave form in which the harmonic components are limited as far as practicable.

Where three-phase generators having grounded neutrals are to be connected either directly or through wye-wye connected transformer banks to three-phase electric supply circuits, means shall be used to suppress triple harmonics as far as necessary and practicable.

2.10(16) Lines.

a. Configuration. Where physical and economic conditions permit a choice of configuration of electric supply circuits within inductive exposures the configuration selected shall be such as to most effectively limit the inductive influence.

b. Co-ordinated transpositions. Where co-ordinated transpositions are necessary to reduce inductive influence electric supply circuits shall be transposed within the inductive exposure. Such transpositions shall be located and installed so as to obtain the best practical co-ordination, due consideration being given to existing transpositions throughout the electrical supply and communication circuits.

2.10(17) Apparatus.

a. Wave shape. Special means and devices for reducing the amplitude of harmonic voltages and currents on electric supply systems involved in inductive exposures shall be used where necessary and practicable.

b. Circuit breakers. Electric supply circuits involved in physical or inductive exposures shall be equipped with automatic circuit breakers or their equivalent.

c. Fuses. In the higher voltage distribution systems, consideration should be given to the use of fuses where branch lines leave the main line.

2.10(18) Current limiting devices. Consideration shall be given to the use of current limiting devices in either the line wires or the neutral-to-ground connection of electric supply circuits.

2.10(19) Shielding. Consideration shall be given to the installation of shield wires in inductive exposures. In order to obtain the full benefit of such shield wires, they must be effectively grounded at both ends of the exposures and at frequent intervals within the exposures.

2.10(20) Branch circuits. Consideration should be given to the isolation of branch circuits consisting of less than the total number of phases of the main circuit by means of transformers, when such main or branch circuits are involved in inductive exposures.

2.11(489) Notice of transfer or assignment of franchise. The holder of a franchise shall notify the Iowa state commerce commission in writing, when transferring any franchise or portion of a franchise, stating the applicable franchise number and docket number which are affected and a description of the route of the transmission line when less than the total franchised line is affected, together with the name of the transferee and date of transfer within thirty days of the effective date of transfer.

[Filed prior to July 4, 1951; amended September 24, 1965, December 14, 1965]

MOTOR TRANSPORTATION DIVISION

CHAPTER 3

TRUCK OPERATORS
AND CONTRACT CARRIERS

3.1(327) General information.

3.1(1) These rules are subject to such changes, modifications and amendments as the commission may from time to time promulgate and adopt under the provisions of chapter 17A of the Code.

3.1(2) Waiver of suspension of rules. The adoption of these rules shall in no way preclude the commission from altering or amending them, pursuant to statute. These rules shall in no way relieve any carrier from any of its duties under the laws of this state. The commission may at its discretion on its own motion or upon request for good cause shown, suspend or waive any of the rules and regulations.

3.1(3) Person defined. The word "person" when used in the rules of the commission will be construed by the commission as including any individual, firm, copartnership, joint adventure, association, corporation, estate, trust, business trust, receiver, or any other group or combination acting as a unit and the plural as well as the singular number.

3.1(4) Extension of authority and commodities. A like commodity shall not be transported under a truck operator permit and a contract carrier permit which is held by the same person.

a. A motor carrier as defined in chapter 325 of the Code, who also holds a truck operator permit, shall not use said permit as a means to extend his motor carrier authority, nor shall he operate his truck operator permit to or from any point held under his motor carrier authority.

b. A holder of a truck operator permit or contract carrier permit shall not use said permits to offer motor carrier service as de-

fined in chapter 325 of the Code, provided that nothing contained in this rule shall prevent a truck operator from providing drayage service on behalf of a motor carrier within the confines of the city or town which said motor carrier is authorized to serve.

c. Under contract carrier authority granted by this commission, a contract carrier shall not engage in the business of transporting general commodities and shall be restricted to the transportation of property by motor truck under individual written contracts which provide special and individual services required by the needs of a particular shipper as prescribed by 327.1(5) of the Code.

3.2(327) Applications and filings.

3.2(1) Application for a permit to operate as a truck operator or contract carrier shall be made to the Iowa State Commerce Commission, Des Moines, Iowa, on forms prescribed for that purpose and furnished upon request.

3.2(2) An application for a truck operator permit must be accompanied by:

a. Liability, property damage and cargo insurance policy or policies, certificate of insurance or surety bond in accordance with section 327.15 of the Code.

b. Two copies of tariff or power of attorney.

c. The annual permit fee as provided in 3.2(5).

3.2(3) Application for a contract carrier permit must be accompanied by:

a. Liability and property damage insurance policy or policies, certificate of insurance or surety bond in accordance with section 327.15 of the Code. There shall be no requirement for cargo insurance.

b. A copy of each transportation contract which the applicant has entered into except that no copies of contract need to be filed by farm-to-market milk and cream haulers. A contract shall be defined as set out in section 327.1(5) of the Code. This paragraph shall not be applicable to applications made under the provisions of section 327.23 of the Code.

c. Annual permit fee as provided in 3.2(5).

d. An affidavit by the applicant showing dedication of equipment to the shipper.

e. An affidavit by the shipper showing the peculiar needs of a shipper requiring contract carrier service.

3.2(4) *Filing of contracts other than with application.* Whenever a contract carrier enters into a new transportation contract after having been issued a permit, said carrier shall file a copy of said new contract and affidavits of dedication and peculiar needs as referred to in 3.2(3) "d" and 3.2(3) "e" with the commission before transporting any property for the shipper. Every contract carrier operating under a permit issued by the commission shall file with the commission a copy of each transportation contract under which said contract

carrier is operating. (This rule does not apply to contract carriers operating under the provisions of section 327.23 of the Code, nor to farm-to-market milk and cream haulers.)

3.2(5) *Annual permit fee.* Application for a permit shall be accompanied by a remittance in the amount sufficient to pay the annual permit fee for each motor truck described on the form attached to the application. The remittance will cover the permit fee for each motor truck described from the date the permit is issued until the thirty-first day of December of the year in which the permit is issued. The annual permit fee shall be remitted to the commission in the form of a certified check, bank draft, cashier's check, express money order or postal money order, payable to the Iowa state commerce commission. The annual permit fee of five dollars for each motor truck and six dollars for each semitrailer for each year after the year in which the permit is issued, shall be due and payable on or before the first day of January of each succeeding year.

3.2(6) *Equipment changes or additions.* Before placing any additional motor trucks in service, the holder of the permit shall furnish the commission a description of such motor trucks together with the information as to time placed in service, make of equipment, factory number and year built. The holder of the permit shall furnish the commission information as to whether or not a fee has been paid on said motor truck by another permit holder under this chapter, together with information as to the time the equipment is to be placed in service under present operator's permit. The holder of the permit shall pay the commission an annual fee on such motor truck provided a fee has not been paid for the current year under this chapter.

3.2(7) *Fee receipt.* The holder of a permit shall be furnished a receipt for each permit fee paid. The receipt or proof that fee has been paid shall be carried with the described motor truck at all times.

3.2(8) *Holders of interstate permits.* Application for a permit governing strictly interstate operation shall be made on the forms prescribed. Chapter 327 of the Code, together with the rules thereunder adopted by the commission insofar as may be applicable, govern holders of permits affording service of a strictly interstate character.

Holders of permits of a strictly interstate character need not file with the commission evidence of cargo insurance required by 3.2(2) "a" and 3.2(4). Rule 3.2(5) shall not be applicable to truck operators or contract carriers operating interstate exclusively as to trucks licensed and domiciled in states reciprocal with Iowa on a comparable fee.

3.2(9) *Transfer of permit.* A truck operator permit or a contract carrier permit may be transferred if the transferee does not hold a like permit. Application for the commission's approval of proposed sale and transfer of a

permit must be filed with the commission on forms prescribed and furnished by the commission, signed and sworn to by all parties. Insurance prescribed by law must be filed by transferee. (See section 327.15 of the Code.) Permit fee for new equipment to be operated by transferee must accompany application. If fee for current year has been paid on equipment, an additional fee is not required. The commission will not approve a transfer of the operator's permit until transferee has complied with 3.4(1) and 3.8(1). [Rule 3.8(1) does not apply to contract carriers.]

3.3(327) Marking of equipment.

3.3(1) Manner of marking equipment. Before placing any equipment in service there shall be painted on each side of the equipment and on the headboards, if appropriate, or on some suitable material securely placed on each side of such equipment, in letters and figures large enough to be easily read at a distance of fifty feet and in a color in contrast to the background the following:

- a. Name of truck operator or contract carrier under whose authority equipment is being operated.
- b. Address of truck operator or contract carrier.
- c. Ia. C.C. P.....
(Permit Number)

All freight carrying motor vehicles operating exclusively under interstate authority shall not be required to display item "b" above.

3.3(2) Registration decal or sticker. The operator of any truck or tractor of any carrier performing an interstate transportation service for compensation within the contemplation of the provisions of chapter 327B of the Code, shall have in his possession, or affixed to said truck or tractor, the decal or sticker issued by this commission bearing the registration number of the carrier.

3.4(327) Insurance.

3.4(1) Insurance requirements. Each truck operator and contract carrier shall at all times maintain on file with the commission effective insurance policy, policies, or surety bond, made out in accordance with these rules, with limits required by chapter 327 of the Code, with respect to the motor trucks used in furnishing truck operator service or contract carrier service under a permit of the assured. Such policy, policies or surety bond shall be written for a period of one year or more. A certificate of insurance in a form prescribed by the commission may be filed in lieu of a policy.

3.4(2) Endorsement for policy. Every policy filed or for which a certificate of insurance is filed with the commission shall have attached thereto the prescribed and applicable required endorsement or endorsements.

3.4(3) Certificates of insurance. Certificates of insurance filed with the commission for truck operator and contract carriers in lieu

of insurance policies written for limits as prescribed by chapter 327 of the Code shall be in accordance with forms prescribed by the commission.

3.4(4) Insurance binders. Binders filed to comply with the insurance requirements of section 327.15 of the Code and these rules pending the issuance and filing of an insurance policy or a certificate of insurance must be made out in accordance with the form prescribed by the commission.

3.4(5) Cancellation and reinstatements. Thirty days prior written notice shall be given the commission on the cancellation of any policy, certificate of insurance or surety bond filed with the commission for a truck operator or contract carrier. Notices of cancellation and reinstatement shall show the correct name and address of the assured as then shown in the policy, the correct name of the insurance company and correct number of the policy. Specific coverage under a policy may be canceled when the notice of cancellation includes that information.

3.4(6) Assignment of interest endorsement for policy. Assignment of interest endorsement filed for policies on file with the commission or for policies for which certificates of insurance have been filed with the commission shall be in accordance with the form prescribed by the commission.

3.4(7) Surety bond. In case a truck operator or contract carrier desires to file a surety bond to comply with the requirements of section 327.15 of the Code the commission will, upon request, provide the form of such bond.

3.4(8) Policies, certificates and bonds remain on file. Insurance policies, certificates of insurance and surety bonds filed with the commission by truck operators and contract carriers shall remain on file in the office of the commission and must not be removed therefrom except with the express permission of the commission.

3.5(327) Freight receipts.

3.5(1) Every truck operator shall issue a receipt in triplicate on date freight is received for shipment and the receipt shall show the following:

- a. Name of truck operator.
- b. Date and place received.
- c. Name of consignor.
- d. Name of consignee.
- e. Destination.
- f. Description of shipment.
- g. Signature of truck operator or agent issuing the receipt.

h. That the charges for transportation of the articles listed on the receipt are subject to the tariff and classifications in effect and on file with the Iowa state commerce commission on the date transportation of the shipment begins.

i. Freight described in apparent good order unless an exception is noted.

3.5(2) Receipts shall be numbered consecutively; there shall be one copy for the consignor, one for the consignee and one to be kept by the truck operator. Operator's copy shall be carried with the cargo and shall show total of all charges made for the movement of freight and shall be kept by the operator for a period of not less than one year, subject to inspection by commission representatives at any reasonable time. Freight receipts for agricultural products being transported from farm-to-market need not be completed until the end of the business day.

3.6(327) Lease of equipment.

3.6(1) Lease defined. Lease, for the purpose of these rules means a written document providing for the exclusive possession, control and responsibility over the operation of the vehicle or vehicles in the lessee for a specific period of time as if such lessee were the owner. A copy of the lease must be carried in the leased equipment at all times.

3.6(2) Number. No truck operator or contract carrier may have more than one lease covering a specific piece of equipment in effect at a given time.

3.6(3) Lease of vehicles to shippers or receivers. No truck operator or contract carrier shall lease vehicles with or without drivers to shippers or receivers.

3.6(4) Identification of equipment. Each lessee shall properly identify each piece of equipment during the period of the lease as specified in 3.3(327).

3.6(5) Conditions. Any lease of equipment by any truck operator or contract carrier except under the following conditions is prohibited:

a. Every such lease must be in writing and signed by the parties thereto or their regular employees or agents duly authorized to act for them.

b. Every lease shall specify the time the lease begins and the time for circumstances on which it ends.

c. Every lease shall set out the specific consideration or method of determining compensation.

d. Every lease shall provide for the exclusive possession, control, and use of the equipment and for the complete assumption of responsibility in respect thereto by the lessee for the duration of said lease.

3.7(327) Complaints.

3.7(1) Complaint on rates. All complaints filed with the commission against truck operators, alleging violation of effective tariffs shall contain the following information in addition to that required by 1.3(474):

a. The name, address and permit number of the truck operator against whom complaint is made.

b. Complete information as to commodity transported, names of shippers and receivers

of the freight, and definite information as to the rates and charges assessed.

c. An allegation setting out complainant's grounds for complaint.

d. Such other information as may be pertinent to the subject matter of the complaint.

e. All complaints must be signed by complainant.

3.7(2) Complaint on tariffs. A complaint against a truck operator charging that the rates, charges, classifications and rules and regulations pertaining thereto contained in the effective tariff of such operator are unjust, unreasonable or discriminating must be filed in accordance with the commission's rules of practice and when so filed, said complaint shall be set down for hearing and hearing held thereon as provided by the said rules of practice, provided that in addition to the persons who may file complaints under the provisions of the rules of practice, the superintendent of motor transportation division or chief of the rate division may file a complaint against a truck operator under this rule. On such hearing the commission shall fix or approve the rates, charges, classifications and rules and regulations pertaining thereto, of the truck operator complained against. [See chapter 1.]

3.8(327) Tariffs.

3.8(1) Form and contents. All truck operators shall maintain on file with the commission a tariff stating the rates and charges to be made for the services performed under their permits; also a classification, if class rates are to be assessed, stating the ratings which are to be applied in connection with the rates named in said tariff. Provided, however, that rates and charges to be applied to movements of household goods transported in closed body, van-type equipment shall be according to the Iowa state commerce commission's household goods tariff No. 13 and supplements thereto and reissues thereof. All tariffs and classifications must conform, to the following rules except as otherwise authorized by the commission.

3.8(2) All tariffs and amendments or supplements thereto must be in book, pamphlet or loose-leaf form of size 8 x 11 inches. They must be plainly printed, mimeographed, planographed, stereotyped or reproduced by other similar durable process on good quality paper. No alteration in writing or erasure shall be made in any tariff or supplement thereto. A margin of not less than five-eighths inch, without any printing thereon must be allowed at the binding edge of each tariff and supplement.

3.8(3) All tariffs and supplements must be filed in the office of the commission and posted in a conspicuous place at the operator's principal place of business at least thirty days prior to the effective date thereof, unless otherwise authorized by the commission, except that tariffs, supplements, or adoption notices issued in connection with applications for

truck operator permits, or the transfer of permits from one truck operator to another, may become effective on a date not earlier than the date on which permits are issued or transferred.

3.8(4) Issuing truck operators or their agents shall transmit to the commission two copies of each tariff, supplement, or revised page. Both copies shall be included in one package accompanied by a letter of transmittal listing all tariffs enclosed and addressed to the Iowa State Commerce Commission, Rate Division, Des Moines, Iowa. All postage or express must be prepaid.

3.8(5) The title page of every tariff and supplement shall show in the order named:

a. Each tariff shall be numbered in upper right-hand corner, beginning with number 1. Such number shall be shown as follows: Ia. C.C. No.

When tariffs are issued canceling a tariff or tariffs previously filed, the Ia. C.C. number or numbers that have been canceled must be shown in the upper right-hand corner under Ia. C.C. number of the new tariff.

b. Supplements to a tariff in addition to showing the Ia. C.C. number of the tariff amended thereby shall be numbered beginning with number 1 and such information shall be shown in the upper right-hand corner. Supplements shall also show in the upper right-hand corner the number of any previous supplements canceled thereby and also the numbers of the supplements containing all changes made in the tariff.

c. The name of each truck operator must be the same as that appearing in its permit. If the truck operator is not a corporation, and a trade name is used, the name of the individual or partners must precede the trade name.

d. A brief description of the territory in which, or points from and to which the tariff applies.

e. Date of issue and date effective.

f. Name, title and street address of truck operator or agent by whom tariff is issued.

3.8(6) Each tariff shall contain in the order named:

a. Table of contents, arranged alphabetically showing the number of the page on which each subject may be found. If a tariff contains so small a volume of matter that its title page or interior arrangements plainly indicates its contents, the table of contents may be omitted.

b. A complete index of all commodities on which specific rates are named therein, together with reference to the page or items in which they are shown. No index need be shown in tariffs of less than five pages or if the rates are alphabetically arranged by commodities.

c. Explanation of all abbreviations, symbols and reference marks used in the tariff.

d. When a tariff names rates by classes, a classification of articles must be published in the tariff or in a separate tariff. When a classification is published in a separate tariff, reference must be made thereto on the title page of the rate tariff as follows:

"Governed, except as otherwise provided herein, by the (here name) classification (showing issuing agent) Ia. C.C. No.supplements to or successive issues thereof."

All truck operators shown as participating carriers in a rate tariff which is governed by a separate classification must be named as participating carrier in such separate classification.

e. *Table of rates.* All rates must be explicitly stated in cents or in dollars and cents, per 100 pounds, per mile, per hour, per ton of 2,000 pounds, per truck load (of stated amount), or other definable measure. Where rates are stated in amounts per package or bundle, definite specifications of the packages or bundles must be shown and ambiguous terms, rates, descriptions or plans for determining charges will not be accepted.

Tariffs containing tables of rates based on distances from point of origin to destination must show the mileages or indicate a definite method by which such mileages should be determined.

3.8(7) Truck operators or their agents may not publish class or commodity rates which duplicate or conflict with rates published by or for account of such truck operator.

3.8(8) Truck operators or their tariff publishing agents may not publish rates on household goods transported in closed body, van-type equipment for distances of thirty miles and over. Such rates are published in the commission's household goods tariff No. 13 or successive issues thereof. Rates on household goods transported in open-type equipment for all distances, and in closed body, van-type equipment for distances under thirty miles, must be published in tariffs of the individual truck operators or in tariffs of their authorized agent.

3.8(9) *Commodity rates.* Commodity rates on articles in stated truck load or in less-than-truck load quantities may be published, and where they differ from a published class rate basis, the lower rate shall take preference.

3.8(10) *Tariff changes.* All rates, charges, and classifications which have been filed with the commission must be allowed to become effective and remain in effect for a period of at least thirty days before being changed, canceled, or withdrawn, unless otherwise authorized by the commission.

All tariffs, supplements and revised pages (including classifications) shall indicate changes from preceding issue by use of the following symbols:

↓ or (R) to denote reductions
 ◆ or (A) to denote increases
 ▲ or (C) to denote changes, the result of which is neither an increase nor a reduction.
 The proper symbol must be shown directly in connection with each change.

3.8(11) Posting regulations. Each truck operator must post and file at its principal place of business all of its tariffs and must also carry copies of such tariffs in every truck operated. All tariffs must be kept available for public inspection or examination at all reasonable times. It is not necessary that household goods tariff No. 13 or successive issues be carried in trucks.

3.8(12) Application for special permission. Truck operators and agents when making application for permission to establish rates, charges, classification rating or rule or less than statutory thirty days notice shall use the form prescribed by the commission.

3.8(13) Powers of attorney and participation notices.

a. Whenever a truck operator desires to give authority to an attorney and agent to issue and file tariffs and supplements thereto in its stead, a power of attorney in the form prescribed by the commission must be used.

b. Whenever a truck operator desires to participate in tariffs issued and filed by another truck operator or its agent, a power of attorney using the form prescribed by the commission shall be issued in favor of such other truck operators. This subsection shall apply only to single line operations.

c. The original of all powers of attorney shall be filed with the commission and a duplicate of the original sent to the agent or truck operator in whose favor such document is issued.

d. Whenever a truck operator desires to cancel the authority granted an agent or another truck operator by power of attorney, this may be done by a letter addressed to the commission revoking such authority on sixty days' notice. Except for good cause shown, the commission will authorize a lesser notice. Copies of such notice must also be mailed to all interested parties.

[Filed May 10, 1966]

MOTOR TRANSPORTATION DIVISION

CHAPTER 4

MOTOR CARRIERS AND CHARTER CARRIERS

4.1(325) General information.

4.1(1) General. These rules are subject to such changes, modifications and amendments as the commission may from time to time promulgate and adopt under the provisions of chapter 17A of the Code.

4.1(2) Waiver or suspension of rules. The adoption of these rules shall in no way preclude the commission from altering or amend-

ing them, pursuant to statute. These rules shall in no way relieve any carriers from any of its duties under the laws of this state. The commission may in its discretion on its own motion or upon request for good cause shown, suspend or waive any of the rules.

4.1(3) Person defined. The word "person" when used in the rules of the commission will be construed by the commission as including any individual, firm, copartnership, joint adventure, association, corporation, estate, trust, business trust, receiver or any other group or combination acting as a unit and the plural as well as the singular number.

4.1(4) Extension of authority. A regular route motor carrier shall not render service by means of a truck operator permit between points which are now being actively served by another certificated carrier.

4.1(5) C.O.D. remittance. Upon collection of a C.O.D. bill, the carrier collecting same shall make prompt remittance. Remittance must be made to the consignor or party entitled to receive the amount as shown on the bill of lading within ten days after delivery of shipment to the consignee.

4.1(6) Receipts for freight and baggage. Every motor carrier shall issue in triplicate a receipt for freight received for shipment, which receipt shall contain the following:

- a. Name of motor carrier.
- b. Date and place received.
- c. Name of consignor.
- d. Name of consignee.
- e. Destination.
- f. Description of shipment.
- g. Weight.
- h. Rate and charges.
- i. Signature of motor carrier or agent.

One copy of such receipt shall be furnished to the consignor, one to the consignee and one retained by the motor carrier. Passenger motor carrier shall issue to passengers a check for baggage tendered to their care.

4.1(7) Passengers and freight. No passenger motor carrier, charter carrier shall transport express, other than newspapers, nor shall any freight motor carrier transport passengers, unless specifically authorized by the commission to do so. Express transported on passenger carrying motor vehicles shall be of such character and not greater in amount than can be safely and conveniently transported without causing discomfort or hazard to passengers.

4.1(8) Redemption of passenger tickets. Passenger motor carriers shall provide for the redemption of unused passenger tickets at the place of purchase and at the carrier's main office in accordance with the provisions of sections 479.99 and 479.100 of the Code.

4.2(325) Insurance.

4.2(1) Insurance requirements. Each motor carrier and charter carrier shall at all

times maintain on file with the commission effective insurance policy, policies or surety bond required by the provisions of chapter 325 of the Code. Such policy, policies, or surety bond shall be written for a period of one year or more. A certificate of insurance may be filed in lieu of a policy. Motor carriers and charter carriers operating exclusively in interstate commerce need not file with the commission cargo insurance prescribed by 325.26 of the Code.

4.2(2) Endorsement of policy. Every policy filed or for which a certificate of insurance is filed with the commission shall have attached thereto the prescribed and applicable required endorsement or endorsements.

4.2(3) Certificates of insurance. Certificates of insurance filed with the commission for motor carriers or charter carriers in lieu of insurance policies written for the limits as prescribed by chapter 325 of the Code, shall be in accordance with the forms prescribed by the commission.

4.2(4) Insurance binders. Binders filed to comply with the requirements of section 325.26 of the Code and these rules pending the issuance and filing of an insurance policy, or a certificate of insurance must be made out in accordance with the form prescribed by the commission.

4.2(5) Cancellation and reinstatements. Thirty days prior written notice shall be given the commission on the cancellation of any policy, certificate of insurance or surety bond filed with the commission for a motor carrier or charter carrier. Notices of cancellation and reinstatement shall show the correct name and address of the assured as then shown in the policy, the correct name of the insurance company and the correct number of the policy. Specific coverage under a policy may be canceled when the notice of cancellation includes that information.

4.2(6) Assignment of interest endorsement for policy. Assignment of interest endorsements filed for policies on file with the commission or for policies for which certificates of insurance have been filed with the commission, shall be in accordance with the form prescribed by the commission.

4.2(7) Surety bond. In case a motor carrier or charter carrier desires to file a surety bond to comply with the requirements of section 325.26 of the Code, the commission upon request will prescribe the form of such bond.

4.2(8) Policies, certificates and bonds to remain on file. Insurance policies, certificates of insurance and surety bonds filed with the commission by motor carriers or charter carriers, shall remain on file in the office of the commission and must not be removed therefrom except with the express permission of the commission.

4.2(9) Suspension. Where regular route motor carriers fail to have effective insurance on file with the commission or fail to pay the regulatory certificate fee, the commission may suspend the authority of such carriers. The suspension shall remain in force and effect until the operator meets the requirements of section 325.26 (insurance) or section 325.35 (fees), or both. The carrier affected by the suspension order may, upon request, have a hearing before the commission.

4.3(325) Self-insurance passenger carriers.

4.3(1) Applications for self-insurance. A motor carrier of passengers requesting self-insurance shall: Make application in writing, file a balance sheet for the calendar year immediately preceding the current year up to and including the full quarter preceding the application. The applicant shall furnish any information the commission may deem necessary with the application or at any time during the period of self-insurance.

4.3(2) Filing of balance sheets. Upon authorization by the commission, a self-insurer shall file with the commission balance sheets within thirty days after the close of each quarter, during the period of self-insurance.

4.3(3) Surety bond. The applicant shall file with the commission a surety bond in the penal sum of one thousand dollars.

4.3(4) Authorization. After receipt and consideration of the items and information required by 4.3(1), 4.3(2) and 4.3(3), the commission may authorize a common carrier of passengers to self-insure.

4.3(5) Cancellation of self-insurance. The commission shall have the right to cancel self-insurance at any time it may deem necessary.

4.4(325) Marking of equipment.

4.4(1) Manner of marking equipment. Before placing any equipment in service there shall be painted on each side of the equipment and on the headboards, if appropriate, or on some suitable material securely placed on each side of such equipment, in letters and figures large enough to be easily read at a distance of fifty feet and in a color in contrast to the background the following:

a. Markings for all passenger carrying motor vehicles.

(1) Name of motor carrier or charter passenger carrier under whose authority equipment is being operated.

(2) Ia. C.C. Cert.
(Number of Certificate)

or
Ia. C.C. Cert. C.C.
(Number of Certificate)

b. Markings for all freight carrying motor vehicles operating exclusively under interstate authority:

(1) Name of motor carrier under whose authority equipment is being operated.

(2) Ia. C.C. Cert.....

(Number of
Certificate)

c. Markings for all freight carrying motor vehicles operating under intrastate authority or operating under interstate and intrastate authority:

(1) Name of motor carrier under whose authority equipment is being operated.

(2) Address of motor carrier.

(3) Ia. C.C. Cert.....

(Number of
Certificate)

4.5(325) Motor carrier application.

4.5(1) *Application for a certificate.* Application for a certificate of convenience and necessity to operate as a motor carrier shall be made to the Iowa State Commerce Commission, State Capitol, Des Moines, Iowa, upon the forms prescribed for that purpose provided by the commission. All such applications shall be typewritten.

4.5(2) *Deposit.* Application for a certificate of convenience and necessity must be accompanied by deposit sufficient to secure the payment of all costs and expenses of hearing and any preliminary investigation necessary in connection therewith. Such deposits shall not be less than \$200.00, the commission reserving the right to require such additional deposit as it may deem necessary. Deposit shall be made by certified check, bank draft, express money order or postal money order, payable to the Iowa state commerce commission. Any unused balance of a deposit will be refunded to the applicant.

4.5(3) *Notice of hearing.* The applicant will be notified as to the time and place for hearing as soon as named by the commission, and furnished with copies of the official notice of hearing, which the applicant shall cause to be published on the same day of the week two consecutive weeks in some newspaper of general circulation published in each county through or in which the proposed service will be rendered. The last publication of said notice must be made not less than ten days prior to the date of hearing. Proof of publication from each newspaper in which the notice was published must be filed with the commission five days prior to the date of hearing. Failure to file such proofs shall be grounds for cancellation of the hearing. The applicant shall pay the cost of such publication and shall file receipt from each newspaper showing the cost of publication has been paid. Prior to publication, the applicant shall examine said notice and notify the commission of applicant's approval of the form and content of the notice or submit a revised notice to the commission.

4.6(325) Placing motor vehicles in service.

4.6(1) *Annual certificate fee.* The annual certificate fee of five dollars for each truck and six dollars for each semitrailer used in intrastate commerce for each year or any part of the year in which the vehicle is used shall

be due and payable on or before the first day of January or at the time the vehicle is placed in service and should be remitted in the form of a certified check, bank draft, cashier's check, express money order or postal money order payable to the Iowa state commerce commission. A complete description of the vehicle on which the fee is paid shall accompany the remittance. (Certificate fees are not payable on tractors or truck tractors.)

4.6(2) *Fee receipt.* The holder of an intrastate certificate shall be furnished a receipt for each certificate fee paid. The receipt shall be carried with the described vehicle at all times.

4.6(3) *Equipment changes or additions.* Before placing any additional or replacement bus, truck or semitrailer in intrastate service, the holder of the certificate shall furnish the commission a description of such motor vehicles together with the information as to the time placed in service, make of equipment, factory number and year built. The holder of the certificate shall also furnish the commission information as to whether or not a current certificate fee has been paid on said motor vehicle by another certificated holder under this chapter, together with information as to time placed in service under present certificated carrier's authority. The holder of the certificate shall pay the commission an annual fee on such motor vehicle provided the fee has not been paid for the current year under this chapter.

4.6(4) *Commencement of operations.* Motor carriers shall begin operating within thirty days after a certificate of convenience and necessity has been issued. Service authorized shall commence within thirty days from the effective date of the certificate, or the operating rights previously granted shall be forfeited unless otherwise ordered by the commission.

4.6(5) *Interruptions of regular service.* All interruptions of regular service, where such interruptions are likely to continue for more than twenty-four hours, shall be promptly reported in writing to the commission, and to the public along the route, with a full statement of the cause of such interruption, and its probable duration.

4.6(6) *Suspension of motor carrier service.* Suspension of service for a period of five consecutive days without notice to the commission shall be cause for forfeiture of all operating rights.

4.6(7) *Unauthorized extensions of certificate.* Motor carriers holding a truck operator permit, a contract carrier permit or both shall not avoid or modify exceptions or limitations in a certificate of convenience and necessity by using any authority granted by such permits.

4.6(8) *Established route.* In all cases where the route or any part of the route of any motor carrier shall be closed by the public

authorities for repairs or for any purpose, the detour prescribed by the public authorities as a substitute for such road shall be the authorized route of the motor carrier until such time as the regular route shall be reopened for public travel. No motor carrier shall receive or discharge passengers or freight on a detour. This subsection shall not be applicable to charter carriers.

4.7(325) Time schedule.

4.7(1) *Time schedule of operation.* Time schedules must be printed or typewritten, numbered consecutively, beginning with number 1, and shall show:

- a. Name and address of motor carrier.
- b. Number of schedule canceled thereby.
- c. Time of arrival at and departure from all terminals.
- d. Time of departure from all intermediate points.
- e. What days each scheduled trip is made.
- f. What points, if any, on the route of the carrier to which service cannot be rendered, and reasons therefor.
- g. Date issued.
- h. Date effective.

4.7(2) Every application for a certificate of convenience and necessity or to change time schedule, must be accompanied by a copy of the proposed schedule. Additional copies shall be furnished when requested by the commission.

4.7(3) No motor carrier shall change a time schedule until after at least thirty days notice of the change proposed has been given to the commission, competitive and connecting motor carriers and the public. Shorter notice may be authorized by the commission upon special request. The notice to the public shall be given by posting a copy of the schedule in a conspicuous place at each station or stopping place affected. After such notice the time schedule will be considered in full force and effect, unless ordered withdrawn, modified or suspended.

A copy of the effective time schedule shall be posted in a conspicuous place, easily accessible to public inspections, at each station or stopping place on the route, and a copy shall be in possession of each driver or operator.

Time schedules as filed with the commission must be adhered to.

4.7(4) *Discontinuance of bus service.* The passenger carrier shall notify mayors of points where bus service is to be discontinued at least fifteen days prior to date of discontinuance of said service and shall furnish the commission with proofs of notification.

4.8(325) Records and reports.

4.8(1) *Records.* Every motor carrier shall keep an accurate record of assets and liabilities, cost and depreciation of all equip-

ment and other physical property owned, receipts from operation, operating and other expenses, total amount of freight hauled in pounds by commodity, number of passengers carried, actual miles traveled within and without the state and such other information the commission may deem necessary from time to time.

4.8(2) *Reports.* Every motor carrier shall file with the commission for the calendar year an annual report, duly verified, in such form as the commission may prescribe, on or before March 31 of the year following that for which the report is filed. The commission will prescribe the character of the information to be embodied in such annual report and will furnish a blank form therefor.

4.9(325) Equipment of passenger carrying motor vehicles.

4.9(1) *Inside lights.* All motor vehicles used in the transportation of passengers, shall maintain a light or lights of not less than two candle power each, within the vehicle and so arranged as to light up the interior thereof for the convenience and safety of the passenger, except that portion occupied by the driver.

4.9(2) *Heating, ventilation and smoking.* Passenger carrying motor vehicles shall be properly ventilated at all times and shall, when weather conditions require, be heated so as to be reasonably comfortable for passengers. No smoking shall be permitted in closed buses, except in designated section.

4.10(325) Drivers.

4.10(1) Every motor carrier or charter carrier who acts as a driver shall comply with all requirements of the law applying to drivers.

4.10(2) Motor carriers and charter carriers shall see that all prospective drivers are familiar with the provisions of chapter 325 of the Code, all other laws applying to motor carriers or charter carriers and these rules and regulations before being allowed to operate a motor vehicle. No driver or operator of any vehicle used in the transportation of passengers shall carry on any unnecessary conversation with passengers, collect fares or make change while such vehicle is in operation, nor shall the operator smoke in the vehicle while driving.

4.10(3) It shall be the duty of the driver or operator of passenger carrying motor vehicles to open and close doors on the vehicle and a notice to that effect shall be posted on each door. Motor vehicles must at all times be operated in a safe manner in conformity with the laws of the road and duly prescribed street traffic regulations.

4.11(325) Safety requirements for passenger carrying vehicles.

4.11(1) *Explosives, acids and inflammable articles not to be carried.* No motor carrier shall knowingly carry or permit to

be carried in any motor vehicle transporting passengers, any high explosives, acid or inflammable liquid or article.

4.11(2) Fire protection. Every motor vehicle used for the transportation of passengers shall be equipped with a fire extinguisher bearing the label of approval of the Underwriters Laboratories, Incorporated. Such extinguisher shall be attached to the vehicle in such a place as to be immediately accessible to the driver and shall be kept in satisfactory operative condition at all times.

4.11(3) Doors on passenger vehicles. Every motor vehicle used for transporting passengers will be equipped with an exit door at the side and an exit door at the rear thereof, or shall have an escape exit on each side thereof, free and clear of any steering apparatus or other obstruction. Such exits shall open outwardly toward the natural means of egress and shall always be unlockable from within.

4.12(325) Application, transfer, lease or assignment of a certificate of convenience and necessity.

4.12(1) Sale, transfer, lease or assignment. Application for the commission's approval of a proposed sale, transfer, lease or assignment of a motor carrier certificate of convenience and necessity must be typewritten, signed and sworn to by parties interested. Proposed sale, transfer, lease or assignment shall not become effective until approved by the commission. Applications involving exclusively interstate authority need contain only information required by paragraphs "a", "b", "c", "h" and "m" of this subsection. Such application shall contain:

a. The name and address of the holder of the certificate, the certificate number and the authority granted thereby.

b. The name and address of the person proposing to take over or lease the certificate.

c. A statement as to whether it is proposed to sell, transfer, lease or assign the certificate, the reasons therefor, and a request that the commission approve such proposal.

d. A statement that a financial statement of the person proposed to take over or lease the certificate is attached to the application. Form of financial statement will be furnished by the commission upon request.

e. A statement that two copies each of the time schedule and tariff proposed to be placed in effect, are attached to the application.

f. The proposed consideration or amount to be paid for the certificate.

g. A description of all property proposed to be sold, transferred, leased or assigned and the amount to be paid therefore.

h. A statement that a copy of the proposed lease is attached to the application, if it is proposed to lease the certificate.

i. A statement that copies of all contracts, agreements and other stipulations be-

tween the parties to the application are attached to the application.

j. A complete description of each bus, truck or combination tractor-truck, semitrailer or trailer to be operated by person proposing to take over or lease the certificate.

k. A statement that the proposed sale, transfer, lease or assignment is not for the purpose of hindering, delaying or defrauding creditors.

l. A statement, including the name and address of each of the transferor's known creditors, signed and sworn to, certifying that each has been mailed notice of proposed transfer.

m. The date on which it is desired that such proposed sale, transfer, lease or assignment shall become effective.

n. Such other facts as may be necessary to give the commission complete information regarding the proposed transaction.

4.12(2) Application of interstate carriers. Chapter 325 of the Code, together with the rules thereunder adopted by the commission insofar as may be applicable, govern motor carriers affording services of a strictly interstate character.

Application for a certificate covering such an operation shall be made upon forms prescribed and furnished by the commission. Subsections 4, 5 and 6, section 325.12 are not applicable to interstate carriers. A showing of convenience and necessity before this commission is not a condition precedent to the granting of a certificate to an interstate carrier. Therefore no hearing will be held for this purpose and 4.5(2) and 4.5(3) of these rules may be disregarded when application is submitted. Applicant shall have first complied with the Motor Carrier Act administered by the interstate commerce commission and the rules and regulations thereunder adopted except in instances where application is made for intrastate authority concurrently with an application for single state interstate authority under the provisions of section 206 "a" (6) of the Interstate Commerce Act, as amended. A showing of convenience and necessity before the commission will be a condition precedent to the granting of a single state interstate certificate and a hearing will be held for this purpose.

4.13(325) Lease of equipment.

4.13(1) Lease defined. Lease, for the purpose of these rules means a written document providing for the exclusive possession, control and responsibility over the operation of the vehicle or vehicles in the lessee for a specific period of time as if such lessee were the owner. A copy of the lease must be carried in the leased equipment at all times.

4.13(2) Number. No motor carrier or charter carrier may have more than one lease covering a specific piece of equipment in effect at a given time.

e. Date of issue and date effective.

f. Name, title and street address of officers or agent by whom tariff is issued.

4.14(6) Tariff publication shall contain in the order named:

a. Index arranged alphabetically showing the tariff contains so small a volume of matter that its title page or interior arrangement plainly indicates its contents, the index may be omitted. No index need be shown in tariffs of less than five pages or if the rates or fares to each destination are alphabetically arranged.

b. Explanation of all abbreviations, symbols and reference marks used in the tariff.

c. When a tariff names rates by classes, a classification of articles must be published in the tariff or in a separate tariff of classification. When a rate tariff is governed by any separately published tariff of classification, tariff of classification exceptions, tariff or rules, or other similar publication affecting the provisions of the tariff reference shall be made in the rate tariff to such separate governing tariffs. A rate tariff may not refer to another rate tariff for classification ratings, exceptions to the classification, rules, lists of commodities, list of points assigned rate groups or rate basis, or other governing provisions. All carriers shown as participating carriers in a rate tariff which is governed by separately published governing tariffs, must be named as participating carriers in such separate governing tariffs. Carriers or their agents may not publish class or commodity rates which duplicate or conflict with other rates published by or for account of such carriers.

d. *Tables of rates.* All rates must be specifically stated in cents or in dollars and cents, per 100 pounds, per mile, per ton of 2,000 pounds per stated truck load or other definable measure. Where rates are stated in amounts per package or bundle definite specifications of the packages or bundles must be shown.

e. *Tables of fares.* An explicit statement of the fares in cents or in dollars and cents, together with the names or description of the points from and to which they apply. Tariffs containing tables of rates or fares based on distances from point of origin to destination must show how the mileage or indicate a definite method by which such mileage shall be determined.

4.14(7) *Commodity rates.* Commodity rates, either specific point-to-point rates or based on distance scales, in stated truckload or in less-than-truck-load quantities may be published, and where they differ from the regular class rate basis, the lower rate shall take preference.

4.14(8) *Excursion fares.* Fares for a round-trip excursion limited to a designated period of not more than three days may be established without further notice, upon

posting of tariff one day in advance in a public conspicuous place where tickets for such round-trip excursions are sold and filing the required number of copies thereof with the commission. Fares for a round-trip of more than three days and not more than thirty days, and fares for a series of daily round-trip excursions not exceeding thirty days, may be established upon a like notice of three days. No supplement may be issued to any tariff which is published under this rule for the purpose of canceling the tariff.

4.14(9) *Tariff changes.* All rates, charges, and classifications which have been filed with the commission must be allowed to become effective and remain in effect for a period of at least thirty days before being changed, canceled or withdrawn, unless otherwise authorized by the commission.

All tariffs, supplements and revised pages (including classifications) shall indicate changes from preceding issues by use of the following symbols which must be shown directly in connection with each change:

↓ or (R) to denote reductions

◆ or (A) to denote increases

▲ or (C) to denote changes, the result of which is neither an increase nor a deduction.

4.14(10) *Posting regulations.* Each carrier must post and file at some designated point at each of its stations or offices, all of the tariff or schedules applying from, or to, or at, such station or office and must also post and file at its principal place of business all of its tariffs and schedules. All tariffs, or schedules must be kept available for public inspection or examination at all reasonable times.

4.14(11) *Applications.* Carriers or agents when making application for permission to establish rates, fares, charges, classification ratings or rule on less than statutory (thirty days) notice shall use the form prescribed by the commission.

4.14(12) *Powers of attorney.* Whenever a carrier desires to give authority to an attorney and agent to issue and file tariffs and supplements thereto in its stead, a power of attorney in the form prescribed by the commission shall be used.

4.14(13) *Concurrence notice.* Whenever a carrier desires to concur in tariffs issued and filed by another carrier or its agent, a concurrence using the form prescribed by the commission shall be issued in favor of such carriers. The original of all powers of attorney and concurrences shall be filed with the commission and a duplicate of the original sent to the agent or carrier in whose favor such document is issued.

Whenever a carrier desires to cancel the authority granted an agent or another carrier by power of attorney or concurrence, this may be done by a letter addressed to the commission revoking such authority on sixty days'

notice. Copies of such notice must also be mailed to all interested parties.

[Filed May 10, 1966; amended July 14, 1967]

[Former rules MV41-MV47 have probably been superseded by 4.3(325).]

CHAPTER 5

MINIMUM RAILROAD CLEARANCES

5.1(477) Scope and application. The following rules prescribe minimum track centers, and minimum horizontal and vertical clearances applicable to tracks, structures, fixtures, and other appurtenances of railroads. The term "railroad" includes steam railroads and electric interurban railroads. These rules apply to all new construction of tracks, bridges, buildings and other structures and facilities adjacent to the tracks of railroads, carried on after date on which these rules become effective. Nothing herein contained prohibits any railroad from constructing its tracks, bridges, buildings and other structures with clearances greater than required by these rules. Where conditions apparently make it impracticable to comply with these rules, application for permission to maintain reduced clearances should be made to the commission in accordance with the directions given in "Procedure" hereof.

5.2(477) General requirements. The vertical and horizontal clearances herein prescribed are for tangent tracks and tracks where the tops of the rails are at the same level, and shall not be less than those shown:

Where one rail is elevated above the other, compensation shall be made so that the minimum vertical and horizontal clearances herein prescribed shall be maintained, the vertical clearances being taken from the top of the higher rail, and the horizontal clearances being measured perpendicularly to a line that passes through the center line of the track and which is perpendicular to the face of the ties.

If the alignment is curved, the horizontal clearance shall be so increased as to provide for the overhanging and the tilting of a car eighty-five feet long, sixty feet between centers of trucks, and fourteen feet high, allowance being made for super-elevation of outer rail.

The distance from top of rail to top of tie shall be taken as eight inches.

5.3(477) Warning signs required. At all overhead freight loading platforms, awnings, canopies, coal chutes, ore tipples, entrances to warehouses, shop buildings and similar structures, where the vertical clearance is less than twenty-two feet, and at all high freight loading platforms where the horizontal clearance is less than eight feet, warning signs must be erected as a caution to employees.

5.4(477) Location and lettering of warning signs. Warning signs for use at places having reduced clearances shall be placed in conspicuous positions, with black letters and border upon a white background. The sign will be of either of two kinds: Vertical or horizontal.

It shall have thereon the words "NO CLEARANCE". The vertical sign shall not be less than 48" x 6", and the horizontal not less than 36" x 6". Letters thereon shall be 3" high, 2" wide, and $\frac{5}{8}$ " stroke, reading top to bottom on the vertical sign and left to right on the horizontal sign.

5.5(477) Printed rules. The railroads shall promulgate a printed rule prohibiting employees from riding on the tops or sides of cars while in motion at points where 5.3(477) requires the maintenance of warning signs.

STEAM RAILROADS

5.6(477) Main tracks. The distance from the center line of any main track to the center line of an adjacent main track, both used exclusively for passenger service, shall be not less than thirteen feet; if freight cars are handled on either or both tracks, the distance between the center lines of such tracks shall be not less than fourteen feet.

5.7(477) Tracks adjacent to main tracks.

5.7(1) Except as to ladder tracks, the distance from the center line of any main track to the center line of any adjacent subsidiary track shall be not less than fifteen feet.

5.7(2) The distance from the center line of any main track to the center line of any adjacent ladder track in which switches are operated mechanically, shall be not less than fifteen feet; in ladder tracks where switches are not operated mechanically, not less than seventeen feet.

5.8(477) Subsidiary passenger tracks.

5.8(1) Except as to ladder tracks the distance between the center lines of any two subsidiary passenger tracks shall be not less than thirteen feet.

5.8(2) Any pair of subsidiary tracks used solely for passenger service may have centers less than thirteen feet provided the center lines of any track, adjacent to either side of such pair of tracks, is located not less than thirteen feet therefrom.

5.9(477) Subsidiary freight tracks.

5.9(1) Except as to ladder tracks the distance between the center lines of subsidiary freight tracks shall be not less than thirteen feet six inches.

5.9(2) Team tracks. Any two adjacent tracks, commonly known as a pair of team tracks, with a driveway on one side thereof, may have track centers less than thirteen feet six inches. If a third track is constructed adjacent to such pair of tracks its track center must be not less than thirteen feet six inches from the center line of the nearest track.

5.9(3) Track system with high platform adjacent thereto. Any system of two or more tracks at freight houses, warehouses, wharves, or similar structures, used exclusively for handling freight to or from high platforms located on one or both sides thereof may have

its track centers less than thirteen feet six inches, provided that at least two tracks in any such system shall have centers not less than this distance.

5.10(477) Ladder tracks.

5.10(1) The distance from the center line of any subsidiary track to the center line of any adjacent ladder track where the switches are operated mechanically, shall be not less than fifteen feet; where the switches are not operated mechanically, not less than seventeen feet.

5.10(2) The distance between the center lines of two adjacent parallel ladder tracks where the switches in both are operated mechanically shall be not less than seventeen feet; where the switches in either or both are not operated mechanically, not less than nineteen feet.

5.11(477) Bridges.

5.11(1) *Bridges supporting main tracks or subsidiary freight tracks.* The clearances of all bridges supporting main tracks or subsidiary freight tracks shall be as follows: Beginning at a point in the center line of track twenty-two feet above the top of rail; thence horizontally four feet; thence downward at an angle to a point sixteen feet above the top of rail and eight feet laterally distant from the center line of track; thence downward to a point four feet above the top of rail and eight feet laterally distant from the center line of track; thence downward on an angle to a point level with the top of rail and five feet six inches laterally distant from the center line of track.

5.11(2) *Bridges spanning main tracks or subsidiary freight tracks.* The clearance of all bridges spanning main tracks or subsidiary freight tracks shall be as follows: Beginning at a point in the center line of track twenty-two feet above the top of rail; thence horizontally four feet; thence downward at an angle to a point twenty feet above the top of rail and eight feet laterally distant from the center line of track; thence downward to a point level with the top of rail and eight feet laterally distant from the center line of track.

5.12(477) Buildings and miscellaneous structures.

5.12(1) *Structures adjacent to main tracks.* Except as otherwise specified the clearances between main tracks and buildings or other structures adjacent thereto shall be as follows: Beginning at a point in the center line of track twenty-two feet above the top of rail the vertical clearance line shall extend thence horizontally each way to points eight feet from the center line of track, from which points the horizontal clearance lines shall extend vertically downward to points level with the top of rail.

5.12(2) *Structures adjacent to subsidiary passenger tracks.* Except as otherwise specified the clearances between subsidiary pas-

senger tracks and buildings or other structures adjacent thereto shall be as follows:

Tracks outside of buildings: Beginning at a point in the center line of track twenty-two feet above the top of rail, the vertical clearance line shall extend thence horizontally each way to points seven feet six inches from the center line of track, from which points the horizontal clearance lines shall extend vertically downward to points level with the top of rail.

Tracks entering buildings: Beginning at a point in the center line of track at such a height as will be most practicable for the height of equipment handled on such tracks the vertical clearance lines shall extend thence horizontally each way to points seven feet from the center line of track, from which points the horizontal clearance lines shall extend vertically downward to points level with the top of rail.

5.12(3) *Structures adjacent to subsidiary freight tracks.* Except as otherwise specified the clearances between subsidiary freight tracks and buildings or other structures adjacent thereto shall be as follows:

Tracks outside of buildings: Beginning at a point in the center line of track twenty-two feet above the top of rail the vertical clearance line shall extend thence horizontally each way to points eight feet from the center line of track, from which points the horizontal clearance lines shall extend vertically downward to points level with the top of rail.

Tracks entering buildings such as warehouses, freight houses, coaling stations, elevators and similar structures: Beginning at a point in the center line of track at such a height as will be most practicable for equipment handled on such tracks the vertical clearance line shall extend thence horizontally each way to points seven feet from the center line of track, from which points the horizontal clearance lines shall extend vertically downward to points level with the top of rail.

5.12(4) *Engine houses, shop doors, car sheds, etc.* The clearances at the entrances of engine houses, shop doors, car sheds, etc., shall be as follows: Beginning at a point in the center line of track at such a height as will be most practicable for the height of equipment using the buildings; thence horizontally each way to points six feet, six inches from the center line of track, from which points the horizontal clearance lines shall extend vertically downward to points level with the top of rail.

5.12(5) *Coal tipples, ore tipples, stone crushers, etc.* The clearances of all subsidiary tracks passing through or underneath coal tipples, ore tipples, stone crushers or similar overhead structures shall be as follows: Beginning at a point in the center line of track at such a height as will be most practicable for the height of equipment handled on such tracks, the vertical clearance line shall extend thence horizontally each way to points seven feet

from the center line of track, from which points the horizontal clearance lines shall extend vertically downward to points level with the top of rail.

5.13(477) Awnings and canopies.

5.13(1) Awnings and canopies at main tracks. Awnings and canopies spanning main tracks or supported at the sides of main tracks shall have clearances as follows: Beginning at a point in the center line of track twenty-two feet above the top of rail, the vertical clearance line shall extend thence horizontally each way to points eight feet from the center line of track, from which points the horizontal clearance lines shall extend vertically downward to points level with top of rail.

5.13(2) Awnings and canopies at subsidiary passenger tracks. Awnings and canopies spanning subsidiary passenger tracks or supported at the sides of such tracks shall have clearances as follows: Beginning at a point in the center line of track at such a height above the top of rail as will be most practicable for the height of equipment handled on such tracks, the vertical clearance line shall extend thence horizontally each way to points seven feet six inches from the center line of track, from which points the horizontal clearance lines shall extend vertically downward to points level with the top of rail.

5.13(3) Awnings and canopies at subsidiary freight tracks. Except as otherwise specified awnings and canopies spanning subsidiary freight tracks or supported at the sides of such tracks shall have clearances as follows: Beginning at a point in the center line of track twenty-two feet above the top of rail; thence horizontally four feet to a point; thence diagonally to a point sixteen feet above the top of rail and eight feet laterally distant from the center line of track; thence vertically downward to a point level with the top of rail; except that awnings and canopies at freight houses and freight loading platforms may be constructed inside of the above limits up to not less than five feet six inches from the center line of the track and not less than seventeen feet above the top of rail.

5.14(477) Overhead loading platforms. All tracks (except main, passing, ladder, or other open thoroughfare tracks) spanned by overhead platforms used for icing or other loading purposes, may have vertical clearances less than twenty-two feet, provided such platforms or structures are so constructed as to open upward or outward by means of counterweights or other devices and thus provide clearances required by 5.12(2) and 5.12(3) at times when cars are being handled over the tracks served by such platforms.

5.15(477) High freight platforms. The faces or edges of high platforms for handling freight to or from cars on subsidiary tracks shall not exceed five feet eight inches from the center

lines of such tracks, except when such platforms have horizontal clearances of eight feet from such tracks.

5.16(477) Low platforms. Platforms not higher than eight inches above the top of rail may be constructed and maintained with faces not less than five feet one inch from the center line of an adjacent track. Platforms less than four inches above the top of rail may be constructed and maintained with faces not less than four feet six inches from the center line of an adjacent track.

5.17(477) Switch stands.

5.17(1) Main tracks. Main track switch stands exceeding two feet ten inches in height and not exceeding four feet in height shall have horizontal clearances of not less than eight feet from the center line of an adjacent track to the nearest part of the switch stand above the base of rail; and not less than eight feet three inches when the switch stand exceeds four feet in height.

5.17(2) Subsidiary tracks. Subsidiary track switch stands exceeding two feet ten inches in height and not exceeding four feet in height shall be not less than seven feet six inches from the center line of an adjacent track to the nearest part of the switch stand above the base of rail; and not less than eight feet when the switch stand exceeds four feet in height.

5.18(477) Low switch stands, dwarf signals, signal apparatus, etc. Switch stands not exceeding two feet ten inches in height, dwarf interlocking signals not exceeding two feet eight inches in height, interlocking switch machines, pipe lines and other signaling apparatus, the third rail and its supports for the electric operation of trains, and guard rails of all kinds may be installed and maintained between or adjacent to tracks regardless of the clearance lines hereinbefore specified.

5.19(477) Penstocks and water tanks.

5.19(1) Penstocks. The distance from the nearest part of a penstock above the top of rail to the center line of an adjacent main track, passing track or subsidiary freight track shall be not less than eight feet; and to the center line of an adjacent subsidiary passenger track other than a passing track, not less than seven feet six inches; except that penstock bases not exceeding four feet above top of rail may have nearest part not less than seven feet six inches from center line of track.

5.19(2) Water tanks. The distance from the nearest part of a water tank to the center line of any adjacent track shall be not less than nine feet.

Spouts in raised position shall have minimum clearances as follows: Beginning at a point in the center line of track twenty-two feet above the top of rail; thence horizontally four feet; thence downward at an angle to a point sixteen feet above the top of rail and

eight feet laterally distant from center line of track; thence vertically downward to a point level with the top of rail and eight feet laterally distant from center line of track.

5.20(477) Semaphore and color light signals. The distance from the nearest part above the top of rail of a semaphore or color light signal, other than a dwarf signal, to the center line of an adjacent track, shall be not less than eight feet.

5.21(477) Poles, posts and signs. The face of all telegraph, telephone, trolley, or other poles, whistle posts, mile posts, posts for signal bridges, whipcords, crossing gates, highway crossing bells, and all other signs, signals or devices not otherwise provided for in these rules, shall be not less than eight feet from the center line of adjacent tracks. No part of any sign or appurtenance attached to such poles or posts shall be less than eight feet from the center line of an adjacent track, between the top of rail and a point seventeen feet above.

5.22(477) Fences. To prevent persons from crossing railroad tracks at unauthorized places in the immediate vicinity of passenger stations fences not more than four feet above the top of rail may be maintained between tracks.

5.23(477) Mail cranes. The distance from the center line of the main track to the nearest part of the mail crane with the arms extended for the mail pouch shall be not less than six feet three inches.

5.24(477) Building materials or supplies. No building materials or supplies of any kind shall be piled nearer to any track than nine feet from the center line thereof, except materials for immediate use, which may be placed not nearer than seven feet six inches from the center line of track.

ELECTRIC RAILROADS

TRACK CENTERS (610)

5.25(477) Main tracks. The distance from the center line of any main track to the center line of an adjacent main track, both used exclusively for passenger service, shall be not less than thirteen feet; where freight cars are handled on either or both tracks, the distance between the center lines of such tracks shall be not less than fourteen feet.

5.26(477) Tracks adjacent to main tracks.

5.26(1) Except as to ladder tracks, the distance from the center line of any main track to the center line of any adjacent subsidiary track shall be not less than fifteen feet.

5.26(2) The distance from the center line of any main track to the center line of any adjacent ladder track in which switches are operated mechanically shall be not less than fifteen feet; in ladder tracks where switches are not operated mechanically, not less than seventeen feet.

5.27(477) Subsidiary passenger tracks.

5.27(1) Except as to ladder tracks the distance between the center lines of any two adjacent subsidiary passenger tracks shall be not less than thirteen feet.

5.27(2) Any pair of subsidiary tracks used solely for passenger service may have centers less than thirteen feet provided the center line of any track adjacent to either side of such pair of tracks is located not less than thirteen feet therefrom.

5.28(477) Subsidiary freight tracks.

5.28(1) Except as to ladder tracks, the distance between the center lines of any two subsidiary freight tracks shall be not less than thirteen feet six inches.

5.28(2) Team tracks. Any two adjacent tracks, commonly known as a pair of team tracks, with a driveway on one side thereof, may have track centers less than thirteen feet six inches. If a third track is constructed adjacent to such pair of tracks its track center must be not less than thirteen feet six inches from the center line of the nearest track.

5.28(3) Track system with high platforms adjacent thereto. Any system of two or more tracks at freight houses, warehouses, wharves, or similar structures, used exclusively for handling freight to or from high platforms located on one or both sides thereof may have its track centers less than thirteen feet six inches, provided that at least two tracks in any such system shall have centers not less than this distance.

5.29(477) Ladder tracks.

5.29(1) The distance from the center line of any subsidiary track to the center line of any adjacent ladder track where the switches are operated mechanically shall be not less than fifteen feet; where the switches are not operated mechanically, not less than seventeen feet.

5.29(2) The distance between center lines of two adjacent ladder tracks where the switches in both are operated mechanically shall be not less than seventeen feet; where the switches in either or both are not operated mechanically, not less than nineteen feet.

STRUCTURAL CLEARANCES (620)

5.30(477) Bridges.

5.30(1) Bridges supporting main tracks or subsidiary freight tracks. The clearances of all bridges supporting main tracks or subsidiary freight tracks shall be as follows: Beginning at a point in the center line of track twenty-two feet above the top of rail; thence horizontally four feet; thence downward at an angle to a point sixteen feet above the top of rail and eight feet laterally distant from the center line of track; thence downward to a point four feet above the top of rail and eight feet laterally distant from the center line of track; thence downward at an angle to a point level with

top of rail and five feet six inches laterally distant from the center line of track.

5.30(2) Bridges spanning main tracks or subsidiary freight tracks. The clearances of all bridges spanning main tracks or subsidiary freight tracks shall be as follows: Beginning at a point in the center line of track twenty-two feet above the top of rail; thence horizontally four feet; thence downward at an angle to a point twenty feet above the top of rail and eight feet laterally distant from the center line of track; thence downward to a point level with the top of rail and eight feet laterally distant from the center line of track. The vertical clearance of bridge shall be such that the trolley contact wire may be maintained at a minimum vertical height of twenty-two feet from top of rail. In such a case the clearance line of the structure shall extend four feet horizontally from center line of track at the maximum height; thence downward at an angle so as to intersect a point twenty feet above the top of rail and eight feet laterally distant from center line of track; and thence follow the clearance line previously designated.

5.31(477) Buildings and miscellaneous structures.

5.31(1) Structures adjacent to main tracks. Except as otherwise specified the clearances between main tracks and buildings or other structures adjacent thereto shall be as follows: Beginning at a point in the center line of track twenty-two feet above the top of rail the vertical clearance line shall extend thence horizontally each way to points eight feet from the center line of track from which points the horizontal clearance lines shall extend vertically downward to points level with the top of rail.

5.31(2) Structures adjacent to subsidiary passenger tracks. Except as otherwise specified the clearances between subsidiary passenger tracks and buildings or other structures adjacent thereto shall be as follows:

Tracks outside of buildings: Beginning at a point in the center line of track twenty-two feet above the top of rail, the vertical clearance line shall extend thence horizontally each way to points seven feet six inches from the center line of track, from which points the horizontal clearance lines shall extend vertically downward to points level with top of rail.

Tracks entering buildings: Beginning at a point in the center line of track at such a height as will be most practicable for the height of equipment handled on such tracks the vertical clearance line shall extend thence horizontally each way to points seven feet from the center line of track, from which points the horizontal clearance lines shall extend vertically downward to points level with the top of rail.

5.31(3) Structures adjacent to subsidiary freight tracks. Except as otherwise specified the clearances between subsidiary freight tracks and buildings or other structures adjacent thereto shall be as follows:

Tracks outside of buildings: Beginning at a point in the center line of track twenty-two feet above the top of rail, the vertical clearance line shall extend thence horizontally each way to points seven feet six inches from the center line of track, from which points the horizontal clearance lines shall extend vertically downward to points level with top of rail.

Tracks entering buildings such as warehouses, freight houses, elevators and similar structures: Beginning at a point in the center line of track at such a height as will be most practicable for equipment handled on such tracks the vertical clearance line shall extend thence horizontally each way to points seven feet from the center line of track, from which points the horizontal clearance lines shall extend vertically downward to points level with the top of rail.

5.31(4) Engine houses, shop doors, car sheds, etc. The clearances at the entrances of engine houses, shop doors, car sheds, etc., shall be as follows: Beginning at a point in the center line of track at such a height as will be most practicable for the height of equipment using the buildings; thence horizontally each way to points six feet six inches from the center line of track, from which points the horizontal clearance lines shall extend vertically downward to points level with the top of rail.

5.31(5) Coal tipples, ore tipples, stone crushers, etc. The clearances of all subsidiary tracks passing through or underneath coal tipples, ore tipples, stone crushers or similar overhead structures shall be as follows: Beginning at a point in the center line of track at such a height as will be most practicable for the height of equipment handled on such tracks, the vertical clearance line shall extend thence horizontally each way to points seven feet from the center line of track, from which points horizontal clearance lines shall extend vertically downward to points level with the top of rail.

5.32(477) Awnings and canopies.

5.32(1) Awnings and canopies at main tracks. Awnings and canopies spanning main tracks or supported at the sides of main tracks shall have clearances as follows: Beginning at a point in the center line of track twenty-two feet above the top of rail; the vertical clearance line shall extend thence horizontally each way to points eight feet from the center line of track; from which points the horizontal clearance lines shall extend vertically downward to points level with the top of rail.

5.32(2) Awnings and canopies at subsidiary passenger tracks. Awnings and canopies spanning subsidiary passenger tracks or supported at the sides of such tracks, shall have clearances as follows: Beginning at a point in the center line of track at such a height above the top of rail as will be most prac-

licable for the height of equipment handled on such tracks, the vertical clearance line shall extend thence horizontally each way to points seven feet six inches from the center line of track, from which points the horizontal clearance lines shall extend vertically downward to points level with the top of rail.

5.32(3) Awnings and canopies at subsidiary freight tracks. Except as otherwise specified awnings and canopies spanning subsidiary freight tracks or supported at the sides of such tracks shall have clearances as follows: Beginning at a point in the center line of track twenty-two feet above the top of rail; thence horizontally four feet to a point; thence diagonally to a point sixteen feet above the top of rail and eight feet laterally distant from the center line of track; thence vertically downward to a point level with the top of rail; except that awnings and canopies at freight houses and freight-loading platforms may be constructed inside of the above limits up to not less than five feet six inches from the center line of the track and not less than seventeen feet above the top of rail.

5.33(477) Overhead loading platforms. All tracks (except main, passing, ladder or other open thoroughfare tracks) spanned by overhead platforms used for icing or other loading purposes, may have vertical clearances less than twenty-two feet, provided such platforms or structures are so constructed as to open upward or outward by means of counterweights or other devices and thus provide clearances required by 5.31(477) at times when cars are being handled over the tracks served by such platforms.

5.34(477) High freight platforms.

5.34(1) The faces or edges of high platforms for handling freight to or from cars on subsidiary tracks shall not exceed five feet eight inches from the center line of such tracks, except when such platforms have horizontal clearances of eight feet from such tracks.

5.34(2) Where railroads use a passenger type of car for handling freight to or from high platforms, the clearances between the faces of such cars and the edges or faces of such platforms shall not exceed four inches, except when such platforms have horizontal clearances of eight feet from such tracks.

5.35(477) Low platforms. Platforms not higher than eight inches above the top of rail may be constructed and maintained with faces not less than five feet one inch from the center line of an adjacent track. Platforms less than four inches above the top of rail may be constructed and maintained with faces not less than four feet six inches from the center line of an adjacent track.

5.36(477) Switch stands.

5.36(1) Main tracks. Main track switch stands exceeding two feet ten inches in height and not exceeding four feet in height shall

have horizontal clearances of not less than eight feet from the center line of an adjacent track to the nearest part of the switch stand above the base of rail; and not less than eight feet three inches when the switch stand exceeds four feet in height.

5.36(2) Subsidiary tracks. Subsidiary track switch stands exceeding two feet ten inches in height and not exceeding four feet in height shall be not less than seven feet six inches from the center line of an adjacent track to the nearest part of the switch stand above the base of rail; and not less than eight feet when the switch stand exceeds four feet in height.

5.37(477) Low switch stands, dwarf signals, signal apparatus, etc. Switch stands not exceeding two feet ten inches in height, dwarf interlocking signals not exceeding two feet eight inches in height, interlocking switch machines, pipe lines, and other signaling apparatus, the third rail and its supports for the electric operation of trains, and guard rails of all kinds may be installed and maintained between or adjacent to tracks regardless of the clearance lines hereinbefore specified.

5.38(477) Semaphore or color light signals. The distance from the nearest part above the top of rail of a semaphore signal post, other than a dwarf signal, to the center line of an adjacent track shall be not less than eight feet.

5.39(477) Poles, posts and signs. The faces of all telegraph, telephone, trolley or other poles, whistle posts, mile posts, posts for signal bridges, whipcords, crossing gates, highway crossing bells, and all other signs, signals or devices not otherwise provided for in these rules, shall be not less than eight feet from the center line of an adjacent track. No part of any sign or appurtenance attached to such poles or posts shall be less than eight feet from the center line of an adjacent track, between the top of rail and a point seventeen feet above same.

5.40(477) Fences. To prevent persons from crossing railroad tracks at unauthorized places in the immediate vicinity of passenger stations, fences not more than four feet above the top of rail may be maintained between tracks.

5.41(477) Building materials or supplies. No building materials or supplies of any kind shall be piled nearer to any track than nine feet from the center line thereof, except materials for immediate use, which may be placed not nearer than seven feet six inches from the center line of track.

5.42(477) When no permission for construction is necessary. Except as may be required by law or by order of the commission, it will not be necessary, previous to new construction of tracks or appurtenances, for any railroad company to obtain permission for such changes

or alterations nor will it be necessary to obtain permission to operate on such tracks, provided the track centers and clearances at such tracks or appurtenances conform to rules contained herein.

5.43(477) When permission for construction is necessary. When conditions in any particular case make it impracticable to comply with the foregoing rules, or for good reason variation therefrom is desired, application may be made to this commission for permission to construct and maintain such tracks or appurtenances with clearances less than are herein provided.

5.44(477) Essentials of application. The application for such permission shall be submitted in triplicate by the railroad company, or jointly by the railroad company and the owner of property when the track or appurtenance is upon private property. Each application must be accompanied by a plan showing the location of the proposed track or appurtenance and the clearances which it is desired to maintain; the name of the company or companies making the application; a description, the location and the reasons for varying from clearance rules; asking for approval of specified clearances set forth in petition; and asking that a date for hearing be fixed and interested parties be notified, in the event the commission deems a hearing of the petition necessary; said petition shall be signed by petitioner or petitioners.

5.45(477) Approval of application. If the commission approves application without a formal hearing, a duplicate of the application will be returned to the petitioner duly certified by the secretary of the commission.

5.46(477) Hearing. When deemed necessary by the commission, a formal hearing will be held upon any application to maintain clearances less than those herein prescribed. Due notice of the time and place of such hearing will be given interested parties. An order will issue after hearing, approving, or disapproving the requested clearances.

[Filed prior to July 4, 1951]

CHAPTER 6

RAILROAD SAFETY DEVICES AND SIGNALS

6.1(478) Under the provisions of sections 478.33 to 478.36, inclusive, of the Code, and in the exercise of powers therein conferred, the Iowa state commerce commission adopted, effective February 15, 1951, rules pertaining to submission and approval of plans covering changes in interlocking plants or other safety devices including requirement for the filing of quarterly interlocking reports by railroad companies, such report forms by reference made a part hereof; and further adopted rules of the interstate commerce commission entitled "Rules, Standards and Instructions for installation, maintenance and repair of auto-

matic block signal systems, interlocking traffic control systems, automatic train stop, train control, and cab signal systems and other similar appliances, methods and systems", effective October 1, 1950, and by reference made a part hereof, as minimum requirements for the installation, maintenance and repair of interlocking and safety devices in the state of Iowa, insofar as the Iowa state commerce commission has jurisdiction; and matters not coming within the provisions of these rules or to which these rules cannot be made applicable shall be given separate consideration by the commission.

The portion of the rules of the Iowa state commerce commission is as follows:

6.2(478) Physical changes, reconstruction, rehabilitation or discontinuance. No interlocking plant or other safety device where railroads cross each other or at a junction or at a drawbridge shall be reconstructed or rehabilitated nor discontinued in whole or in part nor shall any changes be made which involve change in type of system or appliances, or alter the functional operation of apparatus, the location of signals, the aspects displayed by signals, the location of interlocking stations, or which involve or result in change from track arrangement, except upon securing approval from the commission.

6.3(478) Submission of applications.

6.3(1) An application should be filed for each project involving: The discontinuance, in whole or in part, of interlocking plants or other safety devices, or

Any change in interlocking or other safety device which involves change in type of system or appliances, or alters the functional operation of apparatus, the location of signals, the aspects displayed by signals, the location of interlocking stations, or which involves or results from change in track arrangement.

6.3(2) An application may be submitted in the form of a letter describing the nature of the proposal (a copy of information as submitted to the interstate commerce commission may be submitted in lieu of a specifically prepared description of proposal) same to be accompanied by a print, sketch, or other descriptive matter.

6.3(3) When detailed plans, such as locking sheet, dog chart, circuit plans (excepting manipulation chart), are available, they shall be filed for approval.

6.3(4) In the preparation of plans, the graphical symbols and circuit nomenclature, preferably those approved by the Association of American Railroads, Signal Section, shall be used.

6.4(478) Approval of plans.

6.4(1) All submitted plans must show the approval of each of the interested railroad companies.

6.4(2) If the preliminary plan, sketch or print is satisfactory, or if, in the judgment of

the commission, modifications are necessary, the plan will be approved accordingly. The detailed plans, furnished either at the time of application or at a later date, will be likewise approved. One copy of plans will be retained by the commission and other approved copies returned to the maintaining company.

6.4(3) Approvals will be effective for a period of one year. If the work is not started within that period a new approval must be obtained.

6.4(4) The commission may investigate and determine the matters involved in each application with or without formal hearing.

6.5(478) Upon completion of changes immediate advice shall be furnished this commission by the maintaining company or the one in charge of said changes. An inspection will be made by the commission of changes as soon thereafter as is convenient. Changes shall be carried on in accordance with provisions of 136.326.

Upon completion of a new interlocking or other safety device, advice shall be furnished this commission preferably not less than three days in advance of time when protection is ready for inspection. The commission will endeavor to have the protection inspected at the time of its completion, but if unable to do so it will authorize the railroad company in charge to place the protection in conditional service subject to future inspection.

Conditional service shall mean that all units and other apparatus involved be connected and operated from the control point for a period of not less than twenty-four hours, unless otherwise specified. During conditional service all trains shall come to a full stop at the governing signal, regardless of its indication, and shall not proceed until proper signal indication is received.

6.6(478) Certificate of authority. A certificate of authority for the operation of the protection and the passage of trains thereover without first having stopped will be issued to each of the interested railroad companies after inspection by the commission, if the protection is satisfactorily installed and is in accordance with the approved plans.

6.7(478) Modification of rules, standards and instructions. The commission reserves the right to modify any of the provisions of these rules in any specific case or otherwise when in the commission's opinion, public interest or safety will be better served by so doing.

Any party or parties desiring to make any departure from these rules, or believing them unreasonable or inadequate may file a written petition with the commission, whereupon the commission will take such action as may seem to it proper.

6.8(478) Abandonment or permanent removal. Whenever protection is permanently taken out of service the commission must

be notified immediately. Under such a circumstance, train movements will be governed by the usual precautions prescribed by statute, governing train movements over and across railroad grade crossings, junctions, and drawbridges. (Sec. 478.31 of the Code)

6.9(478) Interlocking reports. A report for each authorized protection shall be filed quarterly with the commission by the railroad company in charge of the maintenance of said protection. The report shall be filed on a prescribed form adopted by the commission. It shall be filed within thirty days after the end of the quarter year for which the report is made.

[Filed prior to July 4, 1951]

CHAPTER 7

HIGHWAY RAILROAD CROSSING SIGNALS

7.1(478) In the exercise of powers conferred by statutes relating to highway grade crossing protective devices, the Iowa state commerce commission by order dated December 28, 1934, adopted flashing light and flashing light with rotating stop banner type signals as standards for installation at highway railroad grade crossings in the state of Iowa and subsequently on April 23, 1938, by order additionally adopted the wigwag type signal as one of the standards, providing therein that requisites would be adopted covering signal types, such requisites being adopted August 23, 1938, including plan entitled "Highway Crossing Signal Standards—Iowa", said plan by reference made a part hereof. Requisites read as follows:

7.2(478) Aspects. [Detailed drawings of various crossing signals may be obtained from the Iowa commerce commission.]

7.3(478) Location.

7.3(1) At least one signal shall be located upon each side of the track or tracks and on the right-hand side of the highway as viewed by traffic approaching the crossing. The signals shall normally be located not less than eight feet or more than fifteen feet from the gauge line of the nearest rail of the railroad and not less than six feet or more than twelve feet from the right-hand edge of the pavement or traveled way. The dimensions given are to the center of the mast.

7.3(2) Additional signals or lamp unit assembled may be required where local conditions warrant.

7.4(478) Operating time.

7.4(1) On through tracks, automatically controlled crossing signals shall be arranged to provide not less than twenty seconds' warning for the fastest train approaching the crossing from either direction.

7.4(2) Unless otherwise provided, passing, siding, and switch tracks shall be provided with short crossing track circuits ex-

tending preferably not less than one hundred feet beyond highway in both directions.

7.5(478) Operating power. Two sources of power shall be provided for the operation of crossing signals.

7.6(478) Circuits.

7.6(1) All single or multiple track not in existing signal territory shall have full crossing protection obtained by the staggering of rail insulation at the crossing and by means of shunt connections of the interlocking relays or equivalent arrangement.

7.6(2) All single track within existing signal territory and all multiple track in signal territory in municipalities shall have full protection obtained by means of short track circuits over the crossing.

7.6(3) The short track circuit, on multiple track operations in the country and when within existing signal territory, may be omitted where the likelihood of back-up or reverse movements over the crossing is remote.

7.7(478) Lamp units.

7.7(1) Flashing light:

a. Lamp units (center of lens), unless otherwise specified, shall be located not less than seven feet ten inches, and not more than nine feet above the surface of the highway.

b. Signal lights shall shine in both directions along the highway, and shall be mounted horizontally two feet six inch centers. Lamp units shall be arranged in pairs, back to back, and shall be open at the front and be designed so that the door will move to the side or downward. Peep holes may be used.

c. Lamp units shall be equipped with mountings providing ready adjustment in all directions with positive locking for such adjustments.

d. Lamp units shall be provided with hoods not less than twelve inches in length and with backgrounds twenty inches in diameter. Hoods and backgrounds shall be painted black.

e. Lamp units shall have lenses or roundels, red in color, not less than eight and three-eighths inches in diameter for both front and rear indications. Transmission values, based on A. A. R., Signal Section, standard scale, shall be 220 to 300.

f. The beam spread shall be not less than ten degrees each side of the axial beam under normal conditions. This beam spread is interpreted to refer to the point at the angle mentioned where the intensity of the beam is fifty percent of the axial beam under normal conditions.

7.7(2) Wigwag:

a. Center of lens, unless otherwise specified, shall be located not less than seven feet ten inches and not more than nine feet above the surface of the highway.

b. Signal light(s) located in wigwag banner disc shall shine in both directions along

the highway. The light(s) shall light only at the extremes of the swing of banner, producing an aspect of flashing lights spaced thirty inches apart. An auxiliary light shall be provided to light automatically in case of failure of normal light(s). As an alternate a double filament type bulb having an auxiliary filament of longer rated life than main filament may be used in signals having individual lamp units and reflectors for each direction.

In case the banner fails to make its initial movement from the vertical position, provision shall be made in the wigwag mechanism to insure that the light(s) in the banner will illuminate when current is applied.

c. A metal framework shall encompass the banner at its extreme positions affording a balanced outline reasonably in keeping with stationary lights with backgrounds.

d. The size and painting of disc shall be substantially in accordance with A. A. R. S. S. Drawing 1553. The use of the word "stop" on the disc is optional, but when used a mask must be provided to hide it when the disc is in a vertical position. Crystal lenses with light back of them or reflector buttons may be used in the word "stop".

e. Lamp units shall have lenses, red in color, not less than six and three-eighths inches in diameter for indication in both directions along the highway. Transmission values based on A.A.R. Signal Section, standard scale, shall be 220 to 300.

f. The beam spread shall be not less than ten degrees each side of the axial beam under normal conditions. This beam spread is interpreted to refer to the point at the angle mentioned where the intensity of the beam is fifty percent of the axial beam under normal conditions.

7.8(478) Flashes.

7.8(1) Flashing light. Lights (in pairs) shall flash alternately. The number of flashes for each light per minute shall be thirty minimum and forty-five maximum.

7.8(2) Wigwag. The number of cycles per minute shall be thirty minimum and forty-five maximum. Movement from one extreme to the other and back constitutes a cycle.

7.9(478) Range.

7.9(1) Flashing light. The effective range of flashing lights equipped with ten-volt, ten-watt lamps, or equivalent, burning at rated voltage shall be not less than fifteen hundred feet under bright sunlight conditions with the sun at or near the zenith. This requirement applies to both front and rear indications.

7.9(2) Wigwag. The signal light, when disc is at either end of cycle, shall have a range at night of fifteen hundred feet.

7.10(478) Signs.

7.10(1) The "Railroad Crossing" sign shall normally be in accordance with A. A. R. S. S. Drawing 1642.

7.10(2) The "Number of Tracks" sign shall normally be in accordance with A. A. R. S. S. Drawing 1645.

7.11(478) Bells. If local conditions at a crossing warrant, one or more gong-type bells may be used. Bell shall operate independently of remainder of mechanism, excepting where bell operates as an integral part of a wigwag mechanism.

7.12(478) Signs. A reflector button sign "STOP ON RED SIGNAL" shall be provided for signals shown at Figures 1 and 3 of attached drawings. Such sign shall be in accordance with A. A. R. S. S. Drawing 1646. It shall be displayed toward highway traffic approaching the near side of crossing.

APPLICABLE ONLY TO FLASHING LIGHT WITH ROTATING DISC

7.13(478) Signs. The "stop" sign shall be octagonal in shape, twenty-four inches across the flats, suitably formed of sheet steel, and have the word "stop" in reflector buttons per details of drawing attached.

7.14(478) Mechanism.

7.14(1) The "stop" sign shall be returned to, and held, in a stop position perpendicular and at right angles to the center line of the highway by the force of gravity and shall be moved to, and held, in a clear position parallel to the center line of the highway by the application of electrical energy.

7.14(2) The mechanism shall be arranged to rotate the "stop" sign about its vertical axis from its stop position to its clear position through an angle of ninety degrees against the force of gravity, retaining it in that position as long as electrical energy is supplied and to cause it to return to its stop position by the force of gravity when through the failure of any part or circuit the electrical energy is cut off. The parts shall be locked in their stop and clear positions against any force applied from without the mechanism case.

7.14(3) The "closed circuit" principle shall be made fundamental in the detailed design of all parts of the operating mechanism and in its control and operation.

APPLICABLE TO TYPE UNDER 1—(d)

FLASHING LIGHT-AUTOMATIC GATE TYPE SIGNALS

7.15(478) Signals.

7.15(1) Signals consisting of a combination of flashing light signals and automatic gates shall when indicating the approach of a train present toward the highway the appearance of swinging red light or lights and of horizontal arm or arms extending over the traveled roadway, a sufficient distance to cover the lane or lanes used by traffic approaching the crossing.

7.15(2) Flashing light signals shall meet the requirements shown in these requisites as applying to such signals excepting that "STOP ON RED SIGNAL" sign need not be provided.

7.15(3) The automatic gate arms, when not indicating the approach or presence of a train, shall not obstruct or interfere with highway traffic.

7.15(4) The automatic gate arms shall be mounted on posts or housings containing the arm-operating mechanisms. The posts or housings shall be located not less than three feet from right-hand edge of pavement or traveled way.

7.15(5) The design of the gate operating mechanisms, as far as practicable, shall be such as to insure proper operation during unfavorable weather conditions, and in case of power failure the gate arm shall assume the horizontal position across the roadway.

7.15(6) The mechanisms shall be so designed that if the arms, while being raised or lowered, strike or foul an object they will readily stop, and on removal of the obstruction shall assume the position corresponding with the control apparatus. The gate arms shall be so arranged that if a vehicle is on the crossing with the gates lowered it may proceed off the crossing.

7.15(7) Circuits for operation of the signals shall be so arranged that flashing lights, gate-arm lights, and bell (if bell is used) will start to operate not less than twenty seconds before the fastest train reaches the crossing and will operate between three and five seconds before the automatic gates start to descend. Gates shall reach full horizontal position before the arrival of the fastest train operated over the crossing and remain down until the rear of the train has cleared the crossing.

7.15(8) In addition to the requirements of 7.15(7), the circuits for the operation of the signals shall be so arranged that the flashing lights, gate-arm lights, and bell will operate at any time gate arm is in a position to interfere with highway traffic, regardless of whether or not a train is approaching the crossing.

7.15(9) Each gate arm extending over the roadway shall have three red lights, shining in both directions along the highway, so positioned as to insure, as far as possible, that no vehicle or vehicles standing within the limits of the traffic lane or lanes approaching the crossing can obscure all three lights from the view of drivers of following vehicles. The light nearest the tip of each arm shall burn steadily, and the other two lights on each arm shall flash alternately in unison with the flashing lights on the roadside signal mast.

7.15(10) The bottom of gate arms, when in the horizontal position, shall not be less than three, nor more than four feet above the crown of the roadway.

7.15(11) The gate arms shall be painted on both sides with alternate diagonal stripes of white or aluminum and black.

7.15(12) In each black stripe of each gate arm on the approach side only, there shall be

a diagonal row of not less than three crystal or colorless reflector lenses, not less than one-half inch in optical diameter, to reflect the headlight beams of approaching motor vehicles.

7.15(13) Details of the signals, gates, operating mechanisms and control circuits shall be in accordance with A. A. R. recommended practice.

7.15(14) The gate arms shall operate uniformly, smoothly, and complete all movements without rebound or slap and be securely held when in the raised position.

7.15(15) Each individual gate post shall be provided with independent operating mechanism, and housing to be of sufficient size to allow ready inspection, adjustment and repairs.

7.15(16) The highway traffic lanes in the vicinity of the crossing shall be distinctly marked. The marking and maintenance thereof will be provided by authorities having jurisdiction of the particular highway.

APPLICABLE TO ALL TYPES OF SIGNALS

7.16(478) Painting. Metal parts shall be painted in accordance with A. A. R. Signal Section requirements, and unless otherwise specified will be finished with white or aluminum.

7.17(478) Foundations. Foundations shall be substantially in conformity with A. A. R. Signal Section Drawing 1107. They shall be level, and set parallel to track except where alignment of apparatus requires otherwise. Dimensions are for level and solid ground.

7.18(478) Material and workmanship. All material and workmanship shall be first class in every respect, and every signal installation in all its details shall be constructed and installed to the satisfaction of the Iowa state commerce commission.

7.19(478) Deviations. The commission reserves the right to make such deviations from these requisites as may appear just and proper under the circumstances, it being understood, however, that there will be no change in uniformity of standard aspects in these variations.

[Filed prior to July 4, 1951]

CHAPTER 8

REPORTING OF RAILWAY ACCIDENTS

8.1(474) In the exercise of powers conferred in section 474.46 of the Code, concerning the furnishing of immediate notice by railroad companies relating to loss of life or personal injuries occurring in connection with railroad accidents in the state of Iowa, the Iowa state commerce commission adopted "Rules for the Reporting of Railway Accidents in the State of Iowa" effective November 1, 1932, together with a form for the reporting of said accidents, by reference made a part hereof.

8.2(474) Monthly reports. The monthly reports of railway accidents (including rail failures causing train accidents) should be

made on forms provided by this commission or on forms identical therewith in arrangement, size, color and weight of paper. The forms provided, which are of four kinds, are designated as Forms V, T, R. and F. This commission has adopted "Rules Governing Monthly Reports of Railway Accidents", 1922 Revision, issued by the interstate commerce commission, bureau of standards, and such rules shall govern in the monthly reports of railway accidents to this body.

8.3(474) Immediate report. [See §474.46, of the Code.] The form provided for the purposes of immediate report is Form "C" which is furnished by this commission. Upon the occurrence of any train or train service accident involving serious injury or loss of life, except to trespassers, this form should be filled out and immediately returned. The completed Form "C" report will be returned regardless of the fact that telegraphic report has been made as outlined in 8.4(474) below.

8.4(474) Telegraphic report. In addition to the provisions of 8.3(474) above, immediate report by telegraph or other equal facility should be made as directed for the following classes of accidents:

8.4(1) Collisions. A collision is a violent impact of a train, locomotive, or car with some other train, locomotive, or car while both are on rails. Accidents, however, in which cars, not in suitable condition to withstand common train usage, that, when coupled in trains, may be damaged through ordinary train movements, should be classified as miscellaneous train accidents and not as collisions. Rear-end, head-on, side or raking and railroad grade crossing collisions should be reported by telegraph in all cases where death or serious injury results, except to trespassers, also in cases where damage to railway property amounts to more than one hundred fifty dollars, including the cost of clearing wreck. Collisions involving yard service need only be reported where death or serious injury results.

8.4(2) Derailments. Derailments of all classes should be reported where reportable casualties result, excepting to trespassers. Other derailments than those involving yard service should be reported where the damage to railway property exceeds three hundred dollars, including the cost of clearing wreck. Particularly such derailments as those involving defects in tracks, bridges, switches, signals or other defects in roadway, or such as are the result of malicious intent or tampering, should be reported.

8.4(3) Locomotive boiler accidents. All locomotive boiler accidents are reportable by telegraph, which involve serious injury or loss of life, except to trespassers.

8.4(4) Other accidents.

a. Accidents to persons on moving cars or locomotives resulting from coming in contact with any structure or fixture above or at the side of track.

b. Accidents to employees in train service due to defective equipment, parts or appliances.

This report will be made where death or serious injury results from cause set out above, except to trespassers.

8.5(474) Serious injury. The interpretation of serious injury shall mean:

8.5(1) Injury to an employee sufficient to incapacitate him from performing his ordinary duties for more than three days in the aggregate during the ten days immediately following the accident. This rule applies to employees on duty, and others classed as not on duty, but does not apply to employees classed as passengers or trespassers.

8.5(2) Injury to a person other than an employee if the injury is sufficient, in the opinion of the reporting officer, to incapacitate the injured person from following his customary vocation or mode of life for a period of more than one day. This rule applies also to employees classed as passengers or trespassers.

8.6(474) General application. There may be from time to time accidents which result from causes other than those listed above and which the commission may desire to investigate. The reporting of such accidents must necessarily be left to the judgment of the reporting officer, and if he feels that the accident is such as this body would wish to investigate he will immediately report by telegraph or other equal facility. The desire is to have reported all accidents, whether or not they involve injuries or death, which are due to causes that are worthy of investigation.

8.7(474) Monthly reports. In the exercise of powers conferred by statutes relating to the reporting of railway accidents the Iowa state commerce commission adopted rules of the interstate commerce commission, bureau of statistics, 1922 revision, effective January 1, 1922, entitled "Rules Governing Monthly Reports of Railway Accidents" together with reporting forms required in connection therewith, the rules and reporting forms by reference made a part hereof, as requirements for the monthly report of railway accidents occurring on railroads operated in the state of Iowa, insofar as the commission has jurisdiction; and matters not coming within the provisions of these rules or to which these rules cannot be made applicable shall be given separate consideration by the commission.

[Filed prior to July 4, 1951]

CHAPTER 9 ABANDONMENT OF STATIONS AND SERVICE

9.1(474) Under the provisions of sections 474.15, 474.16 and 474.17, of the Code, and in the exercise of powers therein conferred, the Iowa state commerce commission on the first day of June, 1951, revised and readopted

an order dated June 18, 1937, prescribing form of notice for posting at railroad stations where a railroad company proposes to abandon a railway station or to remove a depot or to discontinue a station or agency.

9.2(474) Form of notice, by reference made a part hereof, adopted effective June 28, 1937, was readopted.

A requirement that a railroad company before proceeding with the abandonment of a station or the discontinuance of services thereat shall file a written request with the Iowa state commerce commission of its intention and request authority to post notices; also providing that notices not be posted until authority is received.

9.3(474) A requirement that the railroad company upon the completion of posting of notices shall file with the Iowa state commerce commission a copy of notice with affidavit form completed.

9.4(474) A requirement that the date named for abandonment or discontinuance of service shall be at least five days later than the final date for the filing of objections; also that not less than fifteen days will be allowed for the filing of objections with the Iowa state commerce commission.

9.5(474) A requirement making the provisions of order equally applicable to proposed discontinuance of railway express agency services.

9.6(474) In the exercise of powers conferred by statutes relating to train service the Iowa state commerce commission adopted resolution dated March 30, 1948, prescribing form of notice for posting at railroad stations in Iowa where not more than one such train is now or hereafter operated on a daily or less than daily schedule.

9.7(474) Form of notice, by reference made a part hereof, adopted effective April 10, 1948.

9.8(474) A requirement that a railroad company before proceeding with the abandonment or permanent curtailment of described train service shall file a written request with the Iowa state commerce commission of its intention; requesting authority to post notices; and further providing that notice allow a period of fifteen days for the filing of objections with the Iowa state commerce commission.

9.9(474) A requirement that proposed changes may become effective, if no objections are filed, on the twenty-fifth day after posting of notice; otherwise the same services previously furnished the public shall be continued until after determination by the Iowa state commerce commission.

9.10(474) A requirement that the railroad company, upon the completion of posting of notices shall file with the Iowa state commerce commission a copy of notice with affidavit form completed.

9.11(474) A finding that the provisions of resolution do not apply where abandonment of railroad line has been permitted; and that the adoption of resolution in no manner affects present procedure of the Iowa state commerce commission in the handling of complaints relating to train services where the number of trains is greater than described in resolution.

9.12(474) The cancellation of the provisions of a resolution of the Iowa state commerce commission adopted January 30, 1943, provided however, that the cancellation of said resolution shall in no manner affect the right of the Iowa state commerce commission to request information deemed by it advisable and proper in connection with the handling of matters relating to train service.

[Filed prior to July 4, 1951]

CHAPTER 10

PIPE LINES AND UNDERGROUND GAS STORAGE

10.1(490) Definitions. Terms not otherwise herein defined shall be understood to have their usual meaning.

1. "Approximate right angle" shall mean within five degrees of a ninety degree angle.

2. "Commission" shall mean the Iowa state commerce commission.

3. "Multiple line crossing" shall mean a point at which a proposed pipe line will either overcross or undercross an existing pipe line.

4. "Permanent permit" shall mean a permit issued after appropriate application to and determination by this commission.

5. "Permit" shall mean a permanent permit or renewal permit issued by the Iowa state commerce commission.

6. "Pipe line" shall mean any pipe, pipes or pipe lines used for the transportation or transmission of gas, gasoline, oils or motor fuels or inflammable fluids.

7. "Pipe-line company" shall mean any person, firm, co-partnership, association, corporation or syndicate engaged in or organized for the purpose of owning, operating or controlling pipe lines for the transportation or transmission of gas, gasoline, oils or motor fuels or inflammable fluids.

8. "Renewal permit" shall mean the reissuance of a permanent permit after appropriate application to and determination by this commission.

9. "Underground storage" shall mean storage of gas in a subsurface stratum or formation of the earth.

10. Technical terms not herein defined shall be as defined in ASA B31.3 and .4—1966 and ASA B31.8—1963 and as the same may hereafter be revised.

10.2(490) Petition for permit. Petition for permit shall be made to this commission upon the form prescribed. A typical set of exhibits to such petition, which exhibits are labeled "A", "B", "C", "D" and "E" are described below:

Exhibit "A". A description of the proposed route of the pipe line. This should be as specific and detailed as circumstances permit. This commission would prefer a legal description showing the general direction of the proposed route through each quarter section of land to be crossed, including township and range and whether on private or public property, public highway or railroad right of way, together with such other information as may be deemed pertinent. Construction deviation of one hundred sixty rods from proposed routing will be permitted.

If it becomes apparent that there will be deviation of greater than one hundred sixty rods in some area from the proposed route as filed with this commission, construction of such line in such area shall be suspended. Exhibits "A", "B" and "E" reflecting such deviation shall be filed, and the procedure hereinafter set forth to be followed upon the filing of a petition for permit shall be followed.

Exhibit "B". Maps of proposed routing of the pipe line. Such maps shall have a minimum scale of not less than one inch to one mile. Strip maps will be acceptable. Two copies of such maps shall be filed.

Exhibit "C". A showing on forms prescribed by this commission of engineering specifications covering the engineering features, materials and manner of construction of the proposed pipe line, its approximate length, diameter and the name and location of each railroad and primary highway and the number of secondary highways to be crossed, if any, and such other information as may be deemed pertinent.

Exhibit "D". Satisfactory attested proof of solvency and financial ability to pay damages in the sum of fifty thousand dollars or more; or surety bond satisfactory to this commission in the penal sum of fifty thousand dollars with surety approved by this commission, conditioned that the petitioner will pay any and all damages legally recovered against it growing out of the operation of its pipe line or gas storage facilities in the state of Iowa; or security satisfactory to this commission as a guarantee for the payment of damages in the sum of fifty thousand dollars.

Exhibit "E". Consent, or other showing of right, of appropriate public highway authorities, or railroad companies, where the pipe line will be placed longitudinally on, over or under, or at other than an approximate right angle to railroad tracks or highway, when such consent is obtained prior to filing of the petition and hearing thereon shall be filed with the petition.

Should the exact and specific route be uncertain at the time of petition, a statement shall be made by petitioner that all such consents or other showing of right will be obtained prior to construction and copies thereof filed with this commission.

Additional exhibits. If permission is sought to construct, maintain and operate facilities

for underground storage of gas, said petition shall include the following information, in addition to that stated above:

a. A description of the public and/or private highways, grounds and waters, streams and private lands of any kind under which such storage is proposed, together with a map thereof.

b. Maps showing the location of proposed machinery, appliances, fixtures, wells and stations necessary for the construction, maintenance and operation of such facilities.

10.3(490) Publication of notice of hearing.

When a petition for permit is received by this commission, accompanied by proper exhibits, it shall be docketed for hearing and petitioner shall be advised of the time and place of hearing. Petitioner shall also be furnished copies of the official notice of hearing which petitioner shall cause to be published once each week for two consecutive weeks in some newspaper of general circulation in each county in or through which construction is proposed. Proof of such publication shall be filed prior to or at such hearing, together with receipts showing that costs of such publication have been paid by petitioner.

10.4(490) Objections. All whose rights or interests may be affected by the object of a petition may file written objection thereto. Such written objection shall be filed with the secretary of this commission not less than five days prior to date of hearing. This commission may, for good cause shown, permit filing of objections less than five days prior to hearing, but in such event petitioner shall be granted a reasonable time to meet such objections.

10.5(490) Hearing. Hearing shall be not less than ten or more than thirty days from the date of last publication of notice of hearing.

Petitioner shall be represented by one or more duly authorized representatives or counsel or both. This commission may examine the proposed route of the pipe line or location of the underground storage facilities which are the object of the petition or may cause such examination to be made on its behalf by an engineer of its selection. One or more members of this commission or a duly appointed hearing examiner shall consider such petition and any objections filed thereto and may hear such testimony as may be deemed appropriate. One or more petitions may be considered at the same hearing. Petitions may be consolidated. Hearing shall be held in the office of this commission or at such other place within the state of Iowa as this commission may designate.

10.6(490) Permanent permit. If after hearing and appropriate findings of fact it is determined a permit should be granted, a permanent permit will be issued. Otherwise such petition shall be dismissed with or without prejudice. Where proposed construction

has not been established definitely, the permanent permit will be issued on the route or location as set forth in the petition, subject to deviation of up to one hundred sixty rods on either side of such proposed route. If the proposed construction is not completed within two years from the date of issue, subject to extension at the discretion of this commission, such permanent permit shall be void and of no further force or effect. Upon completion of the proposed construction, maps of the final routing of the pipe line, bearing rechain survey notes, shall be filed with this commission.

A permanent permit shall normally expire twenty-five years from date of issue. No such permit shall ever be granted for a longer period than twenty-five years.

10.7(490) Renewal permits. Petition for renewal of permit may be filed at any time subsequent to issuance of a permanent permit and prior to the expiration thereof. Such petition shall be made on the form prescribed by this commission. Instructions for the use thereof are included as a part of such form. The procedure for petition for permit shall be followed with respect to publication of notice, objections and hearing. Renewal permits shall normally expire twenty-five years from date of issue. No such permit shall ever be granted for a longer period than twenty-five years. The same procedure shall be followed for subsequent renewals.

10.8(490) Amendments of permits. Petition may be filed for amendment of permanent or renewal permit to cover construction of a line paralleling an existing line of petitioner or to make contiguous extension of an existing underground storage area of petitioner. Such petition for amendment shall be made on the form prescribed by this commission. Such petition shall have attached those same exhibits required for a petition for permit. If such petition for amendment is for paralleling construction and the same falls within the one hundred sixty rods permissive deviation of the permanent permit or subsequent renewal permit, the requirement of publication of notice and hearing may be waived. Subject to such exception only, the procedure for petition for permit shall be followed in all instances. Upon appropriate determination by this commission, an amendment to permanent permit will be issued. Such amendment shall be subject to the same conditions with respect to completion of construction within two years and the filing of final routing maps as attached to permanent permits.

10.9(490) Fees. All fees shall be payable to "Iowa state commerce commission".

All fees referred to below shall be paid in the year of issuance of the permit to which they apply. Such fees shall be collected on the basis of approximate mileage as shown in the particular petition. Upon the filing of final routing maps fees shall be paid or refunded on the basis of adjusted mileage.

Construction inspection fee. Upon issuance of a permanent permit, petitioner shall pay a fee of fifty cents per inch of diameter for each mile or fraction thereof of pipe line covered by such permit.

Annual inspection fee. For each calendar year subsequent to the year in which the construction inspection fee was paid, for which year or fraction thereof a permit (permanent or renewal) shall be effective, there shall be paid an annual inspection fee of twenty-five cents per inch of diameter for each mile or fraction thereof of pipe line. Such payment shall be made prior to January 1 of such calendar year.

Paralleling line fee. A construction inspection fee shall be paid upon the issuance of an amendment to permanent permit and an annual inspection fee shall be paid for each year thereafter that such permit is in force. Both such fees shall be determined as above.

Renewal permit fee. Upon issuance of a renewal permit, there shall be a fee of twenty-five dollars per petition, as the same may be consolidated, plus a flat fee of fifty cents per mile or fraction thereof of pipe line involved, irrespective of diameter, to cover the costs and expenses of the commission in conjunction therewith. Such payment shall be in addition to the annual inspection fee.

10.10(490) Inspections. This commission shall from time to time examine the construction, maintenance and condition of pipe line, underground storage facilities and equipment used in connection with such pipe line or facilities in the state of Iowa to determine if the same is unsafe or dangerous. One or more members of this commission, one or more duly appointed representatives hereof or the same together may enter upon the premises of any pipe-line company within the state of Iowa, for the purpose of making such inspections. Except under extreme circumstances, such inspections shall be made after adequate opportunity has been provided for a representative of such company to accompany such inspecting party.

10.11(490) Standards for construction, operation and maintenance. All pipe lines and underground storage facilities and all equipment used in connection therewith shall be constructed, operated and maintained in accordance with either section 3—PETROLEUM REFINERY PIPING CODE (designated as ASA B31.3—1966), section 4—OIL TRANSPORTATION PIPING CODE (designated as ASA B31.4—1959) or section 8—AMERICAN STANDARD GAS TRANSMISSION AND DISTRIBUTION PIPING SYSTEMS (designated as ASA B31.8—1963), of the American Standard Code for Pressure Piping published by the American Society of Mechanical Engineers, insofar as the same may be applicable, and as said sections may be hereafter altered, amended or modified by said society.

This commission has adopted certain specifications for undercrossings of primary and

secondary roads and railroads in addition to those found in such above-mentioned code. Should conflict exist between such specifications, such conflict shall be resolved by this commission after written information has been filed of such conflict by any party desiring clarification.

10.12(490) Undercrossing permits. Undercrossings of primary or secondary highways and railroad right of ways shall be at an approximate right angle as herein defined, with an additional construction tolerance of five degrees being permitted, unless permission to vary further therefrom is obtained from the proper authority and filed with this commission.

Permission to undercross primary or secondary highways need be sought only from this commission, except in case of undercrossings installed at other than an approximate right angle, as herein defined, in which case permission must be sought from either the Iowa state highway commission or the appropriate county board of supervisors.

It is recommended, however, that pipe-line companies confer with appropriate highway authorities before crossing primary or secondary highways, in order that such companies may determine contemplated future changes in such highways which may influence the location of pipe-line facilities. It is further recommended that pipe-line companies give such authorities advance notice of their intent to cross highways. It is the policy of this commission to give notice to highway authorities of petitions of pipe-line companies for authority to construct pipe lines which will cross highways under the jurisdiction of such authorities.

No special permit need be obtained to cross rivers, waters and streams within the state of Iowa where such crossings are included within a petition to this commission.

10.13(490) River crossings. This commission has primary state jurisdiction to issue permits to cross rivers, waters and streams within the state of Iowa and its jurisdiction in such respect is paramount to that of the Iowa state conservation commission.

As a matter of co-operation, this commission has agreed to furnish the Iowa state conservation commission information relative to crossings of rivers, waters and streams, together with plats of such crossings upon the filing of a petition indicating such crossings. Pipe-line companies shall provide information direct to the Iowa state conservation commission pertaining to the date of commencement of construction where such crossings are involved.

10.14(490) Distribution mains. No petition need be made for permit to construct, operate or maintain a gas main or distribution main as technically defined in ASA B31.8—1963 and which will be operated at a pressure of less

than one hundred fifty pounds per square inch.

10.15(490) Accidents. A preliminary report shall be sent to this commission by registered or certified letter within twenty-four hours of any accident arising from, or in any way connected with the operation of a pipe line or underground storage facility within the state of Iowa, which accident results in personal injury or damage in excess of five hundred dollars to the property of others. Such preliminary report shall give the outstanding characteristics of such accident. Such report shall be followed within a reasonable time by a full written report giving complete details of such accident.

No preliminary report need be made in the event of an accident resulting only in damage to the property of the pipe-line company. A written report of such accident shall be filed with the secretary of this commission within a reasonable time. Accidents involving damage to the pipe line or underground storage facilities of the pipe-line company in an amount less than one thousand dollars, including costs of repair, need not be reported to this commission.

The dollar amounts of damage and repair costs hereinabove referred to must necessarily be the results of the pipe-line company's best estimates made at the time of such accident.

10.16(490) Removal or relocation of pipe lines. Notice of removal from service or relocation of existing pipe lines for which permits have been obtained shall be supplied the secretary of this commission. Such notice shall be accompanied by a plat of the pipe line as relocated or, in the case of removal from service, a plat showing the portion of pipe line removed. No such notice need be supplied of a relocation of three hundred feet or less on either side of the survey center line as filed with this commission unless said relocation would result in placing said pipe line within three hundred feet of an occupied residence. Relocations of one hundred sixty rods or more shall require the filing of a petition for permit.

10.17(490) Sale or transfer of permit. No permit shall be sold without prior written approval of this commission. No transfer of a permit prior to completion of construction shall be effective until the permittee shall file with this commission written notice of date of transfer and name and address of the transferee.

10.18(490) Amendments to rules. These rules are subject to such amendments or exceptions as this commission may deem advisable. Parties desiring to depart from these rules and regulations may make written requests to this commission, whereupon appropriate action will be taken. Amendments hereto shall apply only to permits issued after the effective date of such amendments.

[Filed July 19, 1960; amended August 23, 1962, November 14, 1966]

CHAPTER 11

RESEARCH AND STATISTICS
ACCOUNTING RULES AND REGULATIONS

11.1(474) Commission's adoption of interstate commerce commission accounting rules and regulations. Classes I, II, and III steam railways, railway bridge companies, railway terminal companies, electric interurban railways, Railway Express Agency, Inc., The Pullman Company, class I freight and passenger motor carriers shall adhere to the accounting rules and regulations as prescribed by the interstate commerce commission relating to system and Iowa operations.

11.2(474) Accounting rules applicable to class II freight and passenger motor carriers.

11.2(1) Single entry accounting shall be used regarding daily records that should be kept on operating and nonoperating revenues, operating expenses and operating statistics deemed necessary by the commission.

11.2(2) Revenues are to be entered each day as earned, not once a week or only when collections are made. Rents and interest income should be entered on the day received.

11.2(3) Operating expenses should be entered daily except salaries that are paid weekly or monthly, rents paid monthly, and interest paid. Depreciation charges are to be entered in operating expenses on the fifteenth of each month; and when equipment is retired, such charges cease to be an operating expense. Depreciation may be charged only during the period equipment or facilities are actually being used in connection with operation authorized by this commission.

11.2(4) Freight motor carriers shall keep daily records on pounds carried and truck and/or tractor miles operated, on system and within the state of Iowa, separately.

11.2(5) Passenger motor carriers shall keep daily records on passengers carried, bus miles operated and motor passenger miles revenue, on system and within the state of Iowa, separately.

11.2(6) Revenues earned within the state of Iowa should include all intrastate revenues and a mileage prorate of interstate revenues.

11.2(7) Individual equipment records must be kept showing description, cost, monthly depreciation and mileage records.

11.2(8) Record should be kept on the accrual basis, so that at the end of each calendar year, licenses, insurance, etc., paid for in advance may be carried in prepayment accounts, on financial statement, and not shown as an expense in the year it is not used.

11.2(9) Records are to be set up and kept beginning at the time operations commence and that at no time shall daily entries be more than five days in arrears. Such records must be kept intact and open for inspection by our representatives at any time. Daily records, for

one calendar year or any portion thereof, shall not be destroyed before three years, after the close of such calendar year.

11.2(10) Other records may be kept in addition to these prescribed by the commission, but in no instance shall any class II motor carrier fail to keep daily records as prescribed under this rule.

FILING MOTOR CARRIER ANNUAL REPORTS

11.3(474) Instructions relating to filing annual report forms by class II motor carriers.

11.3(1) Annual report form must be filled out in duplicate and one copy, duly verified and sworn to before a notary public or someone authorized to administer oaths, filed with the office of the Iowa state commerce commission, Des Moines, Iowa, on or before February 28 of the year following that for which annual report is filed.

11.3(2) Every annual report must, in all particulars, be complete in itself; and reference to the return of former years should not be made to take the place of required entries.

11.3(3) If it be necessary or desirable to insert additional statements, typewritten or other, in a report, they should be legibly made on durable paper, and, wherever practicable, on sheets not larger than a page of the annual report form. Inserted sheets should be securely attached, preferably at the inner margin; attachment by pins or clips is insufficient.

11.3(4) All entries in the report form should be taken from the motor carrier's daily record, and must be made in permanent black ink, except those of a contrary or unusual character, which should be in red ink.

11.3(5) Each motor carrier must make its annual report to this commission in duplicate, retaining one copy in its files for reference in case correspondence, with regard to said report, becomes necessary. For this reason two copies of the report form are furnished to each motor carrier concerned.

11.3(6) If for any reason a motor carrier is unable to complete and file its report on or before February 28, the commission may extend the time fixed for filing said report upon request and proper showing.

11.3(7) Failure to file said annual report may be considered by the commission as just cause for revocation of certificate.

11.3(8) The year means the calendar year ending December 31 of the year for which the report is made; or, in case the report is made for a shorter period than one year, it means the close of the period covered by the report within the calendar year for which the report is made.

11.3(9) Should the entire authority granted a motor carrier be transferred to another carrier, or revoked, a report covering the current operations during such calendar year, or portion thereof, must be completed

and filed with this office not later than thirty days after the commission's order of transfer or revocation.

[Filed July 19, 1960; amended August 23, 1962, November 7, 1966]

CHAPTER 12

BONDED WAREHOUSES

12.1(543) Application of rules. These rules are subject to such changes and modifications as the commission may from time to time deem advisable and to such exceptions as may be considered just and reasonable in individual cases.

12.2(543) Types of products to be warehoused. Products to be warehoused shall be divided into two general types or classes as follows:

1. Bulk grain.

2. Agricultural and farm consumable products other than bulk grain.

For the purpose of storage, grain processed for seed purposes shall be classed as an agricultural product other than bulk grain.

12.3(543) Application for license. Application for a license to operate as a bonded warehouseman under the Iowa bonded warehouse law shall be made to the commission on forms prescribed for that purpose, which will be furnished to prospective applicants upon request. All such applications should be typewritten and all information must be furnished as required by section 543.5 of said bonded warehouse law.

12.4(543) Warehouse license. A warehouse license shall specify the type and quantity of products which may be stored in a licensed warehouse. A license may be issued authorizing the storage of either or both general types or classes of products to be warehoused provided the warehouse or warehouses described in the application is or are found to be suitable for the proper and safe storage of the product or products intended to be stored therein.

No storage unit shall be considered suitable for the storage of bulk grain unless the warehouseman has available the necessary equipment and space to properly turn and condition the grain to be stored therein or unless said storage unit is properly equipped with approved means of keeping the grain, to be stored therein, from going out of condition.

Warehouse licenses are nontransferable.

12.5(543) Amendment of license. Section 543.8 of the Iowa bonded warehouse law provides that the commission is authorized upon its own motion, or upon receipt of written application, to amend any license previously issued by it, to change or modify the provisions as to type and quantity of agricultural products which may be stored in the warehouse or warehouses in respect to which the license was originally issued. No ware-

house license shall be amended to cover change in name of the warehouseman.

12.6(543) Extension and renewal of warehouse license. A warehouse license shall terminate on the thirtieth day of June next after the date of issuance. However, a warehouse license may be kept in continuous force and effect by the warehouseman filing a proper application for renewal prior to the date of termination. A warehouse license which has terminated may be reinstated by the commission upon receipt of proper application filed by the warehouseman, provided that such application is filed within ninety days from the date of termination of the warehouse license.

12.7(543) Bonds. Bonds filed with the commission shall be on forms prescribed and furnished by the commission. The amount of bond required to be filed in connection with the storage of bulk grain shall be as follows:

12.7(1) For intended storage of bulk grain in any quantity less than twenty thousand bushels the minimum amount of the bond shall be six thousand dollars plus one thousand dollars for each two thousand bushels or fraction thereof in excess of twelve thousand bushels up to a total of twenty thousand bushels.

12.7(2) For intended storage of bulk grain in any quantity not less than twenty thousand bushels and not more than fifty thousand bushels the minimum amount of the bond shall be ten thousand dollars plus one thousand dollars for each three thousand bushels or fraction thereof in excess of twenty thousand bushels up to a total of fifty thousand bushels.

12.7(3) For intended storage of bulk grain in any quantity not less than fifty thousand bushels and not more than seventy thousand bushels the minimum amount of the bond shall be twenty thousand dollars plus one thousand dollars for each four thousand bushels or fraction thereof in excess of fifty thousand bushels up to a total of seventy thousand bushels.

12.7(4) For intended storage of bulk grain in any quantity not less than seventy thousand bushels the minimum amount of the bond shall be twenty-five thousand dollars plus one thousand dollars for each five thousand bushels or fraction thereof in excess of seventy thousand bushels.

The amount of bond to be filed in connection with the storage of agricultural and farm consumable products other than bulk grain shall be determined in accordance with the provisions of section 543.13 of the Iowa bonded warehouse law.

Bonds shall be so written as to indemnify storage in the facilities of the warehouseman as described in the particular warehouse license held by the warehouseman.

The amount of bond prescribed in this rule

is the minimum that will be accepted by the commission. However, a bond in a higher amount may be filed by the warehouseman if he deems it advisable in the carrying on of his warehouse business.

12.8(543) Insurance. Each warehouseman licensed by this commission, or operating under a temporary permit, shall keep fully insured, for its current market value, against loss by fire, inherent explosion or windstorm, all agricultural products in storage in his warehouse and all agricultural products which have been deposited temporarily in his warehouse pending storage or for purpose other than storage. Such insurance shall be carried in an insurance company or companies authorized to do business in this state and shall be provided by and carried in the name of the warehouseman. Each policy providing such coverage must have attached thereto an Iowa bonded warehouse endorsement form as prescribed by the Iowa state commerce commission.

As evidence of such insurance coverage having been provided, a certificate of insurance form as prescribed by the Iowa state commerce commission shall be filed with this commission.

Not more than one policy shall be included on any one certificate of insurance and where one policy provides coverage for two or more locations (towns) a separate certificate of insurance shall be executed for each location (town) shown on said policy.

The amount of insurance shown on a certificate of insurance shall be the total amount provided by the particular policy and for the particular location for which such certificate is executed.

12.9(543) Notice to commission. The commission shall be notified at once in the following cases:

In all cases of loss or damage to storage or to licensed storage facilities.

In case of death of individual or any member of partnership operating a bonded warehouse.

In case of change of ownership of a bonded warehouse.

In case of change in name under which a bonded warehouse is operated.

12.10(543) Issuance of warehouse receipts. For all agricultural products that become storage in a warehouse licensed by this commission, receipts shall be issued by the warehouseman conducting such warehouse. Such receipts must be signed by the warehouseman or his authorized agent and shall be countersigned by the secretary of the commission. The original receipt shall be issued to the depositor of the commodity placed in storage and a copy of such receipt shall be immediately filed with the commission.

Bulk grain deposited with a licensed warehouseman with instructions to hold for further instructions, or with instructions for any other disposition, may be retained by him in

a licensed warehouse for a period of ten days or more provided that any retention for a period of more than nine consecutive days, shall, commencing with the tenth day, be deemed to be a retention for storage pending other disposition of the bulk grain and provided further that not later than the tenth day from date of deposit of the bulk grain such licensed warehouseman shall issue warehouse receipts therefor. Provided, however, that in each instance of a deposit of grain by the United States government or any subdivision or agency thereof, a period of thirty days shall be permitted in each instance where a period of ten days is above specified, and action which is specified above to be taken on the tenth day shall be taken on the twenty-ninth day.

Any grain, which has been received at any bonded warehouse and for which the actual sale price is not fixed and payment made therefor within ten days after the receipt of said grain, is construed to be grain held in storage within the meaning of the Iowa bonded warehouse law and warehouse receipts shall be issued therefor not later than the tenth day after the receipt thereof.

The weight and number of bushels to be shown on a warehouse receipt issued on bulk grain shall be the weight and number of bushels of grain actually placed in storage including dockage and/or foreign material.

Test weight, moisture and any other grade factors pertinent to determining grade shall be shown on warehouse receipts issued on bulk grain, under the heading "Remarks".

Not more than one commodity or grade or value of commodity shall be shown on a warehouse receipt.

If a warehouse receipt is intended to be a nonnegotiable receipt it shall state, in the space provided therefor on the face of the receipt, that the goods received will be delivered to the depositor or any other specified person.

If a warehouse receipt is intended to be a negotiable receipt it shall state, in the space provided therefor on the face of the receipt, that the goods will be delivered to the bearer, or to the order of any person named in such receipt.

12.11(543) Form of warehouse receipt. Warehouse receipt forms shall be of a size seven inches in width by eight and one-fourth inches in length and shall be printed in not less than triplicate. The original receipt shall be white in color and the weight of the paper used shall be not less than twenty-pound base. The commission's copy shall not be lower in pink in color and the weight of the paper used shall be not less than sixteen-pound base. The paper used for both original receipt and the commission's copy shall be not lower in quality than number one sulphite.

Receipts issued for bulk grains shall be in a form prescribed by the Iowa state commerce commission.

Receipts issued for agricultural and farm consumable products other than bulk grain shall be in a form prescribed by the Iowa state commerce commission.

12.12(543) Cancellation of receipts. Upon delivery of commodity represented by a warehouse receipt, the original receipt must be canceled upon the face thereof by the warehouseman or his authorized agent. The original receipt must then be forwarded to the office of the commission to be stamped with the commission's cancellation stamp, after which the receipt will be returned to the warehouseman.

If only a portion of commodity represented by a negotiable warehouse receipt is delivered, that warehouse receipt must be canceled by the warehouseman and a new receipt issued covering the balance of commodity remaining in storage.

No commodity represented by an outstanding negotiable warehouse receipt shall be delivered until such outstanding receipt is returned to the warehouseman.

No warehouse receipt shall be canceled by the warehouseman until the commodity represented by such receipt has been removed from storage.

No original warehouse receipt shall be destroyed until same has been canceled by the commission.

Original warehouse receipts voided by the warehouseman for any reason shall be immediately forwarded to the commission for cancellation.

When a warehouse license is canceled or otherwise terminated all unused warehouse receipts under such license shall be surrendered to the commission for cancellation.

12.13(543) Lost receipt. If a warehouse receipt is lost or destroyed, a duplicate may be issued in accordance with the provisions of section 543.19 of the Iowa bonded warehouse law. However, if the product represented by the lost or destroyed receipt is to be removed from storage, a release may be procured from the person to whom the receipt was issued, on a form provided by the commission for that purpose. The release, in duplicate, must then be forwarded to the office of the commission for cancellation in the same manner as provided for original receipts.

The indemnity bond to be required by the warehouseman before issuing a duplicate receipt in accordance with the provisions of section 543.19 of the Code, must be in a form that will fully protect all rights under the missing original receipt and shall be in an amount not less than the full market value of the commodity covered by such missing receipt at the time the duplicate receipt is issued.

12.14(543) Storing of commodities. Bulk grain in storage shall be leveled off in such manner that the amount of grain in the storage facility may be readily determined.

Other than bulk grain storage shall be stored in such a manner that it can be readily inspected and the amount and kind thereof determined.

12.15(543) Storage on hand to cover outstanding receipts. A warehouseman must at all times have sufficient commodities in his licensed warehouse facilities to cover all outstanding warehouse receipts. A warehouse receipt shall be considered as outstanding until returned to and canceled by the warehouseman.

12.16(543) Monthly statements. A statement shall be prepared at the close of business at the end of each calendar month and filed with the commission by the tenth of the month following. This statement shall be on a form prescribed by the commission, which will be furnished to the warehouseman upon request. A statement must be filed for each calendar month regardless of whether or not the warehouseman has commodities in storage.

12.17(543) Tariffs. Each warehouseman, at the time of making application for a warehouse license, shall file a tariff with the commission and publish the same in accordance with the provisions of section 543.28 of the Code. Such tariff shall be on a form prescribed by the commission, which forms will be furnished to the applicant upon request. Such tariff containing rates to be charged for storage, delivery, and conditioning of stored products shall be furnished in duplicate to the commission. After being properly numbered and dated by the commission, one copy of the tariff will be returned to the applicant for publication. Publication of the tariff shall be made by posting the same in a conspicuous place at the place of business of the applicant.

12.18(543) Amending tariff. Tariffs may be amended by the licensed warehouseman by filing a new tariff with the commission and publishing the same in the same manner as outlined for an original tariff. Such amended tariff shall contain rates to be charged for the storage, delivery and conditioning of all commodities to be stored by the warehouseman. Upon the effective date of the amended tariff the previous tariff shall be considered void and canceled in its entirety.

12.19(543) Posting of licenses and tariffs. Warehouse licenses, weigher and/or grader licenses and tariffs shall be posted in a conspicuous place at the warehouseman's place of business and in such manner as to be protected from damage or effacement.

12.20(543) Rates. Rates charged by a warehouseman for storage, conditioning and delivery of agricultural products shall be those contained in the effective tariff filed with the commission in accordance with the provisions of section 543.28 of the Code, except there shall be no minimum charge requirement for storage or delivery of bulk grain stored for the sole purpose of processing and which is redelivered to the original depositor.

12.21(543) Identification of licensed storage units. Each storage unit and/or building licensed under the Iowa bonded warehouse law shall have painted thereon an identifying letter or numeral or both, assigned by the commission. These identifying letters or numerals shall be painted in a conspicuous place on the storage unit and/or building.

Identifying letters or numerals on a storage unit or building must remain legible as long as the unit or building continues as a licensed storage facility.

12.22(543) Maintenance of storage facilities. All licensed storage facilities shall be maintained in such manner as to be suitable for the proper and safe storage of the particular product or products to be stored therein. Safe and adequate means of ingress and egress to the various storage units of the warehouse shall be provided and maintained by the warehouseman.

Storage units having entrance over twenty feet above ground or floor level and not in excess of fifty feet above such ground or floor level shall be equipped with a fixed ladder or safe and adequate lift. If equipped with fixed ladder, such ladder shall have side rails and rungs, these rungs to be spaced not to exceed one foot centers and there shall be sufficient space between ladder rung and face of structure to permit safe foothold. Storage units having entrance over fifty feet above ground or floor level shall be equipped with safe and adequate lift.

Walkways, lifts and ladders shall be kept clean and free of grain and other matter which might endanger the safety of persons using same.

Any storage facility which fails to meet these requirements will be called to the attention of the warehouseman. Failure of the warehouseman to place such facility in a suitable condition within a reasonable length of time will result in said facility being eliminated from coverage by the warehouse license. [Filed January 30, 1956; amended November 23, 1964]

MOTOR TRANSPORTATION DIVISION CHAPTER 13 LIQUID TRANSPORT CARRIERS

13.1(327A) General information.

13.1(1) These rules are subject to such changes, modifications and amendments as the commission may from time to time promulgate and adopt under the provisions of chapter 17A of the Code.

13.1(2) Waiver or suspension of rules. The commission may in its discretion on its own motion or upon request for good cause shown, suspend or waive any of the rules.

13.1(3) Person defined. The word "person" when used in the rules of the commission will be interpreted by the commission as including any individual, firm, copartnership,

joint adventure, association, corporation, estate trust, business trust, receiver or any other group or combination acting as a unit and the plural as well as the singular number.

13.2(327A) Insurance requirements.

13.2(1) General. Each liquid transport carrier shall at all times maintain on file with the commission effective insurance policy, policies or surety bond, made out in accordance with these rules and regulations with limits required by chapter 327A of the Code, with respect to the vehicles used in furnishing liquid transport carrier service. Such policy, policies, or surety bond shall be written for a period of one year or more. A certificate of insurance in the form prescribed by the commission may be filed in lieu of a policy.

13.2(2) Endorsement of policy. Every policy filed or for which a certificate of insurance is filed with the commission shall have attached thereto the prescribed and applicable required endorsement or endorsements.

13.2(3) Certificates of insurance. Certificates of insurance filed with the commission for liquid transport carriers in lieu of insurance policies written for the limits as prescribed by chapter 327A of the Code, shall be in accordance with forms prescribed by the commission.

13.2(4) Insurance binders. Binders filed to comply with the insurance requirements of chapter 327A of the Code, and these rules pending the issuance and filing of an insurance policy or a certificate of insurance must be made out in accordance with the form prescribed by the commission.

13.2(5) Cancellation and reinstatements. Thirty days prior written notice shall be given the commission of the cancellation of any policy, certificate of insurance or surety bond filed with the commission for a liquid transport carrier. Notices of cancellation and reinstatement shall show the correct name and address of the insured as then shown in the policy, the correct name of the insurance company and the correct number of the policy. Specific coverage under a policy may be canceled when the notice of cancellation includes that information.

13.2(6) Assignment of interest endorsement for policy. Assignment of interest endorsements filed for policies on file with the commission or for policies for which certificates of insurance have been filed with the commission shall be in accordance with the form prescribed by the commission.

13.2(7) Surety bond. If a liquid transport carrier desires to file a surety bond to comply with the requirements of chapter 327A of the Code, the commission will, upon request, prescribe the form of such bond.

13.2(8) Policies, certificates and bonds to remain on file. Insurance policies, certificates of insurance and surety bonds, filed with the commission by liquid transport

carriers, shall remain on file in the office of the commission and must not be removed therefrom except with the express permission of the commission.

13.2(9) Suspension. Where a liquid transport carrier fails to have effective insurance on file with the commission or fails to pay the regulatory certificate fee, the commission may suspend the authority of such carriers. The suspension shall remain in force and effect until the operator has met the requirements of chapter 327A.5 (insurance) and chapter 327A.19 (fees). The carrier affected by the suspension order shall, upon request, have a hearing before the commission.

13.3(327A) Marking of equipment.

13.3(1) Manner of marking equipment. Before placing any equipment in service there shall be painted on each side of the equipment and on the headboards, if appropriate, or on some suitable material securely placed on each side of such equipment, in letters and figures large enough to be easily read at a distance of fifty feet and in a color in contrast to the background the following:

- a. Name of liquid transport carrier under whose authority equipment is being operated.
- b. Address of liquid transport carrier.
- c. Ia. C.C. LC.....
(Certificate number)

All liquid carrier equipment operating exclusively under interstate authority shall not be required to display item "b" above.

13.3(2) Registration decal or sticker. The operator of any truck or tractor of any carrier performing an interstate transportation service for compensation within the contemplation of the provisions of chapter 327B of the Code, shall have in his possession, or affixed to said truck or tractor, the decal or sticker issued by this commission bearing the registration number of the carrier.

13.4(327A) Application and notice of hearing.

13.4(1) Application for a certificate. Application for a certificate of convenience and necessity to operate as a liquid transport carrier shall be made to the Iowa State Commerce Commission, Des Moines, Iowa, upon the forms prescribed for that purpose. All such applications shall be typewritten.

13.4(2) Deposit. Application for a certificate of convenience and necessity must be accompanied by a deposit sufficient to secure the payment of all costs and expenses of hearing and any preliminary investigation necessary in connection therewith. Such deposit shall not be less than two hundred dollars. The commission reserves the right to require such additional deposit as it may deem necessary. Deposit must be made by certified check, bank draft, express money order or postal money order, payable to the Iowa state commerce commission. Any unused balance of a deposit will be refunded to the applicant.

13.4(3) Sale, transfer, lease, assignment or acquisition of control or management of a certificate. Application for a proposed sale, transfer, lease, assignment or acquisition of control or management of a certificate of convenience and necessity must be typewritten, signed and sworn to by all interested parties and filed with the commission for ninety days prior to the proposed effective date. Each application shall be made upon the form prescribed for that purpose and applicant must comply with 13.4(2) and 13.4(4).

13.4(4) Publication of notice of hearing. The applicant will be notified as to the time and place for hearing as soon as named by the commission and furnished with copies of the official notice of hearing, which the applicant shall cause to be published on the same day of the week two consecutive weeks in some newspaper of general circulation published in each county through or in which the proposed service will be rendered. The last publication of said notice must be made not less than ten days prior to the date of hearing. Proof of publication from each newspaper in which the notice was published must be filed with the commission five days prior to the date of the hearing. Failure to file such proofs may result in the cancellation of the hearing. The applicant shall pay the cost of such publication and shall file receipt from each newspaper showing the costs of publication have been paid. Applicant shall examine said notice prior to publication and notify the commission of applicant's approval of the form and content of the notice or submit a revised notice to the commission.

13.4(5) Notice by applicant to liquid transport carrier. Applicant filing application for sale, transfer, lease, assignment or acquisition of control or management of a liquid transport carrier certificate, in addition to the requirements of 13.4(4) shall notify by registered or certified mail each liquid transport carrier holding a certificate of convenience and necessity issued by the commission to transport over, in, or through the area described in the application. Proof of notice by return signature card must be filed with the commission five days prior to the date of the hearing. The applicant shall pay the cost of such mailings. Failure to file proof may result in cancellation of the hearing.

13.4(6) Interstate carriers. Chapter 327A of the Code, together with the rules thereunder adopted by the commission insofar as may be applicable, govern carriers affording service of a strictly interstate character. Application for a certificate covering such an operation shall be made upon forms prescribed by the commission. A showing of convenience and necessity before this commission is not a condition precedent to the granting of an interstate certificate. Therefore, no hearing is held for this purpose and 13.4(2), 13.4(4), 13.5(2) and 13.5(4) of these rules may be disregarded when application is submitted. Applicant should have first complied with the Motor

Carrier Act, administered by the interstate commerce commission and the rules and regulations thereunder adopted. All interstate carriers shall file and maintain with the commission appropriate liability and property damage insurance policy or policies, surety bond or proper certificate(s) of liability and property damage insurance covering said motor vehicles used within the state of Iowa in accordance with 13.2(1).

13.5(327A) Annual reports and fees.

13.5(1) Records and filings. Every liquid carrier shall keep an accurate record of assets and liabilities, costs and depreciation of all equipment and other physical property owned, receipts from operation, operating and other expenses, gross amount of liquids hauled, actual miles traveled within and without the state and other required information and shall file with the commission for the calendar year an annual report, duly verified, in such form as the commission may prescribe on or before March 31 of the year following that for which the report is filed. The commission will prescribe the character of the information to be embodied in such annual report and furnish a blank form therefor.

13.5(2) Annual certificate fee. Application for a certificate of convenience and necessity shall be accompanied by a remittance in the amount sufficient to pay the annual certificate fee of five dollars for each motor vehicle described on the form attached to the application, provided, however, that the fee herein provided for each semitrailer shall be in the amount of six dollars. The remittance will cover the certificate fee for each motor vehicle described from the date the certificate is issued until the thirty-first day of December of the year in which the certificate is issued. The annual certificate fee should be remitted in the form of a certified check, bank draft, cashier's check or money order payable to the Iowa state commerce commission. The annual certificate fee for each motor vehicle for each year after the year in which the certificate is issued shall be due and payable on or before the first day of January for each succeeding year and shall be remitted in the form prescribed above.

13.5(3) Fee receipt. The holder of an intrastate certificate shall be furnished a receipt for each certificate fee paid. The receipt shall be carried with the described trailer at all times.

13.5(4) Equipment changes or additions. Before placing any additional vehicles in service, the holder of a certificate of convenience and necessity shall pay the commission the annual fee and furnish a complete description of such motor vehicles operated in intrastate commerce together with information as to the time the equipment is to be placed in service. Description shall show registration of equipment and factory number.

13.6(327A) Freight receipts.

13.6(1) Receipt for freight. Every liquid carrier shall issue a receipt in triplicate on

date freight is received for shipment and the liquid carrier's copy must be fully completed at the end of each day's business. Receipts shall show the following:

- a. Name of liquid carrier.
- b. Date and place received.
- c. Name of consignor.
- d. Name of consignee.
- e. Destination.
- f. Description of shipment.
- g. Rate and charges.
- h. Signature of liquid carrier or agent.

One copy of such receipt shall be furnished to the consignor, one to the consignee and one to be retained by the liquid carrier.

13.7(327A) Complaints.

13.7(1) Complaint on rates. All complaints filed with this commission against liquid carriers alleging violations of effective tariffs shall be written and contain the following information:

- a. The name, address and certificate number of the liquid carrier against whom claim is made.
- b. Complete information as to the type of liquid transported, name of shipper and receiver of freight and definite information as to rates assessed.
- c. An allegation setting out complainant's ground for complaint.
- d. Such other information as may be pertinent to the subject matter of the complaint.
- e. Complaint must be signed by complainant.

13.7(2) Complaint on tariffs. A complaint against a liquid carrier charging that the rates, charges, classifications and rules and regulations pertaining thereto contained in the effective tariff of such liquid carrier are unjust, unreasonable or discriminating must be filed in accordance with the commission's rules of practice and when so filed said complaint shall be set down for hearing and hearing held thereon as provided by the said rules of practice, provided that in addition to the persons who may file complaints under the provisions of the rules of practice the superintendent of motor transportation or chief of rate division may file a complaint against a liquid carrier under this rule. On such hearing the commission shall fix or approve the rates, charges, classifications and rules and regulations pertaining thereto, of the liquid carrier complained against.

13.8(327A) Driver requirements.

13.8(1) General. Every liquid transport carrier who acts as a driver shall comply with all requirements of the law applying to drivers. Liquid transport carriers shall see that all prospective drivers are familiar with the provisions of chapter 327A of the Code, and all other laws applying to liquid transport carriers and these rules before allowing them to operate a motor vehicle.

13.8(2) Definitions. The following definitions shall be used:

a. On duty. A driver is "on duty" from the time he begins to work or is required to be in readiness to work until the time he is relieved from work and all responsibility for performing work; except time spent resting in a sleeper berth or not driving or assuming any other responsibility while traveling, each driver must be given at least eight consecutive hours off duty after arrival at destination, during which period he shall be considered as off duty.

b. Driving time. The terms "drive", "operate" and "driving time" include all time spent on a moving vehicle; and any interval not in excess of ten minutes in which the driver is on duty and not on a moving vehicle; except the terms "drive", "operate" and "driving time" does not include certain travel time under the exceptions in section "a" of this rule.

13.8(3) Every liquid transport carrier and his or its officers, agents, representatives and employees who drive motor vehicles or are responsible for the hiring, supervision, training, assignment or dispatching of drivers, shall comply with the requirements of this rule.

13.8(4) Minimum requirements. No person shall drive, nor shall any liquid transport carrier require or permit any person to drive any motor vehicle unless that person possess the following minimum qualifications:

a. No loss of foot, leg, hand or arm—no mental or functional disease likely to interfere with driving—no loss of fingers, impairment or use of foot, leg, fingers, hand or arm or other structural defect or limitation likely to interfere with safe driving.

b. Visual acuity of at least 20/40 (Snellen) in each eye either without glasses or by correction with glasses — ability to distinguish colors red, green or yellow — drivers requiring correction by glasses shall wear properly prescribed glasses at all times when driving.

c. Hearing shall not be less than 10/20 in the better ear for conversational tones, without a hearing aid.

d. The driver shall not be addicted to the use of narcotics or habit-forming drugs or the excessive use of alcoholic beverages or liquors.

e. Every driver shall be experienced in driving some type of motor vehicle (including private automobiles) for not less than one year including experience through the four seasons.

f. Every driver shall be competent by reason of experience in driving the type of motor vehicle or motor vehicles which he drives.

g. Every driver shall be familiar with the rules and regulations established by this commission and by the department of public safety relating to motor vehicles.

h. Every driver shall be not less than twenty-one years of age.

13.8(5) Physical examination of drivers. No person shall drive nor shall any liquid transport carrier require or permit any person to drive any motor vehicle unless said person shall have been physically examined and shall have been certified by a licensed doctor of medicine or osteopathy as meeting the requirements of 13.8(4).

Every driver shall be physically re-examined and shall be certified by a licensed doctor of medicine or osteopathy as meeting the requirements of this rule at least once in every thirty-six months.

13.8(6) Certificate of physical examination. Every liquid transport carrier shall have in its files at his principal place of business for every driver employed or used by it a legible certificate of a licensed doctor of medicine or osteopathy based on a physical examination as required by this rule, or a legible photographically reproduced copy thereof and every driver of such carrier is required to have in his possession while driving such a certificate or photographically reproduced copy thereof covering himself.

A doctor's certificate shall certify as follows:

DOCTOR'S CERTIFICATE

This is to certify that I have this day examined in accordance with rule 13.8(5) as required by the liquid transport carrier rules of the Iowa state commerce commission and that I find him:

- Qualified under said rules.
- Qualified only when wearing glasses.

I have kept on file in my office a complete examination form for this person.

.....
(date)
.....
(place)

.....
(Signature of examining doctor)

Signature of driver.....
Address of driver

13.8(7) Nothing contained in these rules shall be construed as to prevent a liquid transport carrier from required additional or more stringent physical, mental or intellectual qualifications or age requirements than prescribed in this rule.

13.9(327A) Hours of driving.

13.9(1) No liquid transport carrier subject to these regulations shall permit or require a driver in his employ to drive or operate for more than twelve hours in the aggregate in any period of twenty-four consecutive hours, unless such driver be off duty for eight consecutive hours during or immediately following the twelve hours aggregate driving, and within said period of twenty-four consecutive hours; provided, however, that two periods of resting or sleeping in a berth may be accumulated to give the aforesaid total of eight hours off duty.

13.9(2) No liquid transport carrier subject to these rules shall permit or require any driver in his employ to remain on duty for a total of more than sixty hours in any week; provided, however, that carriers operating vehicles on every day of the week may permit drivers in their employ to remain on duty for a total of not more than seventy hours in any period of 192 consecutive hours.

13.10(327A) Driver's daily log.

13.10(1) Every liquid transport carrier shall require that a driver's daily log shall be made in duplicate by every driver employed or used by it and every driver who operates a motor vehicle shall make such log. Such log shall be in the form as follows:

DRIVER'S DAILY LOG													<small>ORIGINAL—File each day at home terminal. DUPLICATE—Driver retains in his possession for one month.</small>												
<small>(One calendar day — 24 hours)</small>																									
_____ <small>(Month) (Day) (Year)</small>			_____ <small>(Total mileage today)</small>			I certify these entries are true and correct:			_____ <small>(Vehicle or state license number)</small>																
_____ <small>(Name of Carrier)</small>						_____ <small>(Driver's signature in full)</small>																			
_____ <small>(Main Office Address)</small>						_____ <small>(Home Terminal Address)</small>																			
	<small>MID-NIGHT</small>	1	2	3	4	5	6	7	8	9	10	11	<small>NOON</small>	1	2	3	4	5	6	7	8	9	10	11	Total Hours
1: OFF DUTY																									
2: SLEEPER BERTH																									
3: DRIVING																									
4: ON DUTY (Not Driving)																									
REMARKS	<small>MID-NIGHT</small>	1	2	3	4	5	6	7	8	9	10	11	<small>NOON</small>	1	2	3	4	5	6	7	8	9	10	11	
<small>Check the time and enter name of place you reported and were released from work and when and where each change of duty occurred.</small>																									
FROM: _____												TO: _____													
<small>(Starting point or place)</small>												<small>(Destination or turn around point or place)</small>													
<small>USE TIME STANDARD AT HOME TERMINAL</small>																									

13.10(2) Drivers and liquid transport carriers will be held responsible for the proper maintenance of the daily logs. Driver shall keep the log current to the time of the last change of duty status. Failure to make logs, failure to make required entries therein, falsification of entries, or failure to file logs with the liquid transport carrier will make both the driver and the carrier liable to prosecution.

13.10(3) The driver shall forward each day the original log to his home terminal. If the services of a driver are used by more than one carrier during a calendar day, the driver shall furnish each motor carrier a copy of his log for the entire day. In such case the log shall indicate the name of each carrier served by the driver during that day.

13.10(4) The original logs shall be retained by the liquid transport carrier for a period of one year. Duplicate copies of the logs are the driver's personal records and are to be kept for a period of one month in the possession of the driver while he is on duty.

13.10(5) The time standard in effect at the driver's home terminal shall be used. The log shall be prepared, maintained and submitted for a twenty-four hour calendar day beginning at midnight.

13.10(6) All entries shall be made by the driver except that the name and main office address of the liquid transport carrier may be printed or otherwise entered by an authorized representative of the carrier. The name of the liquid transport carrier shall be that for which the driving is performed. In case of the driver of a leased vehicle, the name shown shall be that of the liquid transport carrier performing the transportation.

13.10(7) The driver shall certify to the correctness of the log by signing his name in full.

13.10(8) In addition to the identification of the carrier and the driver's signature, the entries shall indicate:

a. The month, day and year for which the log is prepared.

b. The total mileage traveled during the calendar day covered by the log.

c. The carrier's vehicle number or, if no such number is provided, the state license number of the power unit.

d. Driver's home terminal address.

e. The actual period or periods during the calendar day spent in the activities specified on lines 1, 2, 3 and 4 by drawing a continuous line between the appropriate time markers. The following directions are illustrative only and are not to be construed as modifying these definitions or rules:

(1) Line 1. *Off duty*. All times, except that spent in a sleeper berth, when the driver is not working, is not required to be in readiness to work, or is not under any responsibility for performing work.

(2) Line 2. *Sleeper berth*. All time resting in a sleeper berth.

(3) Line 3. *Driving*. All time spent driving or riding on a moving vehicle, including all stops not in excess of ten minutes, except that time spent in a sleeper berth or time spent traveling under the conditions named in 13.4(6).

(4) Line 4. *On duty (not driving)*. All time spent by a driver in performing work other than driving, such as, loading or unloading, preparing reports, remaining in readiness to perform work, remaining in charge of a disabled vehicle, stops for meals unless the driver has been relieved from duty, etc.

f. Under "Remarks" the time and the name of the place where each such change of duty occurred, such as the place of reporting for work, starting to drive, stops exceeding ten minutes in duration and where released from work. Explain any emergency resulting in hours exceeding those permitted by the regulations.

g. In the column "total hours", the hours and fractions thereof shown in each of lines 1, 2, 3 and 4. The sum of the entries in this column must total twenty-four hours. Enter the place where the trip began and the final destination or farthest turn-around points. On trips requiring more than one calendar day, the log for each day shall show the origin and final destination at the bottom of the log with the points of beginning and ending the travel of that day shown as required by "f" in "Remarks." If a driver departs from and returns to the same place on any day, the "destination or turn-around point" shall be the farthest point reached before the driver begins his return trip.

13.10(9) The Iowa state commerce commission will not provide supplies of the log. The log may be incorporated as a part of any daily form used by a carrier provided it is so ruled and the log appears distinct and separate from other portions of such form. In reproducing the log, dimensions of approximately 5½ x 7½ inches shall be used. The full instructions for the use of the log must be reproduced either on the reverse side of each log sheet or, if logs are bound in book form, on either side of the book cover. Stocks of logs in the possession of carriers or their suppliers on the effective date of these regulations may be used.

13.11(327A) Tariffs.

13.11(1) *Form and contents*. All liquid transport carriers shall maintain on file with the commission a tariff stating the rates and charges to be made for the services performed under their certificates; also a classification, if class rates are to be assessed, stating the ratings which are to be applied in connection with the rates named in said tariff. All tariffs and classifications must conform to the following regulations, except as otherwise authorized by the commission.

13.11(2) All tariffs and amendments or supplements thereto must be in book, pamphlet or loose-leaf form of size 8 x 11 inches. They must be plainly printed, mimeographed, planographed, steneotyped, or reproduced by other similar durable process on good quality paper. No alteration in writing or erasure shall be made in any tariff or supplement thereto. A margin of not less than five-eighths inch, without any printing thereon must be allowed at the binding edges of each tariff and supplement.

13.11(3) All tariffs and supplements must be filed in the office of the commission and posted in a conspicuous place at least thirty days prior to the effective date thereof, unless otherwise authorized by the commission, except that tariffs, supplements, or adoption notices issued in connection with applications for liquid transport carriers, or the transfer of certificates from one liquid transport carrier to another, may become effective on a date not earlier than the date on which permits are issued or transferred.

13.11(4) Issuing liquid transport carriers or their agents shall transmit to the commission two copies of each tariff, supplement, or revised page. Both copies shall be included in one package accompanied by a letter of transmittal listing all tariffs enclosed and addressed to the Iowa State Commerce Commission, Rate Division, Des Moines, Iowa. All postage or express must be prepaid.

13.11(5) Title page of every tariff and supplement shall show in the order named:

a. Each tariff shall be numbered in upper right-hand corner, beginning with number 1. Such number shall be shown as follows:
Ia. C.C. No.

When tariffs are issued canceling a tariff or tariffs previously filed, the Ia. C.C. number or numbers that have been canceled must be shown in the upper right-hand corner under the Ia. C.C. number of the new tariff.

b. Supplements to a tariff in addition to showing the Ia. C.C. number of the tariff amended thereby shall be numbered beginning with number 1 and such information shall be shown in the upper right-hand corner. Supplements shall also show in the upper right-hand corner the number of any previous supplements canceled thereby and also the numbers of the supplements containing all changes made in the tariff.

c. The name of each liquid transport carrier must be the same as that appearing in its certificate (or application if no certificate has been issued). If the liquid transport carrier is not a corporation, and a trade name is used, the name of the individual or partners must precede the trade name.

d. A brief description of the territory in which, or points from and to which, the tariff applies.

e. Date of issue and date effective.

f. Name, title and street address of liquid

transport carrier or agent by whom tariff is issued.

13.11(6) Tariffs shall contain in the order named:

a. Table of contents, arranged alphabetically showing the number of the page on which each subject may be found. If a tariff contains so small a volume of matter that its title page or interior arrangement plainly indicates its contents, the table of contents may be omitted.

b. A complete index of all commodities on which specific rates are named therein, together with reference to the page and items in which they are shown. No index need be shown in tariffs of less than five pages or if the rates are alphabetically arranged by commodities.

c. Explanation of all abbreviations, symbols and reference marks used in the tariff.

d. When a tariff names rates by classes, a classification of articles must be published in the tariff or in a separate tariff. When a classification is published in a separate tariff, reference must be made thereto on the title page of the rate tariff as follows:

"Governed, except as otherwise provided herein, by the (here name) classification (showing issue agent) Ia. C.C. No. supplements to or successive issues thereof."

All liquid transport carriers shown as participating carriers in a rate tariff which is governed by a separate classification must be named as participating carriers in such separate classification.

e. *Table of rates.* All rates must be explicitly stated in cents or in dollars and cents, per gallon, per mile, per hour, per ton of 2,000 pounds, per truck load (of stated amount), or other definable measure.

Tariffs containing tables of rates based on distances from point of origin to destination must show the mileages or indicate a definite method by which such mileages should be determined.

f. Liquid transport carriers or their agents must not publish class or commodity rates which duplicate or conflict with rates published by or for account of such liquid transport carriers.

13.11(7) *Commodity rates.* Commodity rates on articles in stated truck-load or in less-than-truck-load quantities may be published, and where they differ from a published class rate basis, the lower rate shall take preference.

13.11(8) *Tariff changes.* All rates, charges and classifications which have been filed with the commission must be allowed to become effective and remain in effect for a period of at least thirty days before being changed, canceled or withdrawn, unless otherwise authorized by the commission.

All tariffs, supplements and revised pages (including classifications) shall indicate chang-

es from preceding issues by use of the following symbols:

- ↓ or (R) to denote reductions
- ◆ or (A) to denote increases
- ▲ or (C) to denote changes, the result of which is neither an increase nor a reduction.

The proper symbol must be shown directly in connection with each change.

13.11(9) Posting regulations. Each liquid transport carrier must post and file at its principal place of business tariffs, classifications and governing rules and regulations. All tariffs must be kept available for public inspection or examination at all reasonable times.

13.11(10) Application for special permission. Liquid transport carriers and agents when making application for permission to establish rates, charges, classification ratings or rule on less than statutory thirty days notice shall use the form prescribed by the commission.

13.11(11) Powers of attorney and participation notices.

a. Whenever a liquid transport carrier desires to give authority to any attorney and agent to issue and file tariffs and supplements thereto in its stead, a power of attorney in the form prescribed by the commission must be used.

b. Whenever a liquid transport carrier desires to participate in tariffs issued and filed by another liquid transport carrier or its agent, a power of attorney using the form prescribed by the commission shall be issued in favor of such other liquid transport carrier.

c. The original of all powers of attorney shall be filed with the commission and a duplication of the original sent to the agent or liquid transport carrier in whose favor such document is issued.

d. Whenever a liquid transport carrier desires to cancel the authority granted an agent or another liquid transport carrier by power of attorney this may be done by a letter addressed to the commission revoking such authority on sixty days notice, except for good cause shown the commission will authorize a lesser notice. Copies of such notice must also be mailed to all interested parties.

13.12(327A) Lease of equipment.

13.12(1) Lease defined. Lease, for the purpose of these rules means a written document providing for the exclusive possession, control and responsibility over the operation of the vehicle or vehicles in the lessee for a specific period of time as if such lessee were the owner. A copy of the lease must be carried in the leased equipment at all times.

13.12(2) Number. No liquid carrier may have more than one lease covering a specific piece of equipment in effect at a given time.

13.12(3) Lease of vehicles to shippers or receivers. No liquid carrier shall lease vehicles with or without drivers to shippers or receivers.

13.12(4) Identification of equipment. Each lessee shall properly identify each piece of equipment during the period of the lease as specified in 13.3(327A).

13.12(5) Conditions. Any lease of equipment by any liquid carrier except under the following conditions is prohibited:

a. Every such lease must be in writing and signed by the parties thereto or their regular employees or agents duly authorized to act for them.

b. Every lease shall specify the time the lease begins and the time or circumstances on which it ends.

c. Every lease shall set out the specific consideration or method of determining compensation.

d. Every lease shall provide for the exclusive possession, control, and use of the equipment and for the complete assumption of responsibility in respect thereto by the lessee for the duration of said lease.

[Filed May 10, 1966; amended June 10, 1966; July 14, 1967]

CHAPTER 14

Reserved for future use

UTILITIES DIVISION

CHAPTER 15

PRACTICE AND PROCEDURE

15.1(490A) General information.

15.1(1) Procedure governed. These rules are promulgated under chapter 490A, of the Code, as guides for practice and procedure thereunder before the Iowa state commerce commission (hereinafter referred to as the "commission") unless otherwise ordered by the commission in any proceeding, and subject to such special rules, regulations or amendments thereto which may hereafter be adopted.

No rule or regulation of the commission shall in any way relieve a utility from any of its duties under the law of this state.

None of the procedures provided for herein shall apply to electric transmission line hearings under chapter 489 of the Code or to pipeline and underground gas storage hearings under chapter 490 of the Code.

15.1(2) Communications. All Communications to the commission shall be addressed to the Iowa State Commerce Commission, Des Moines, Iowa, unless otherwise specifically directed. Pleadings and other papers required to be filed with the commission shall be filed in the office of the commission within the time limit, if any, for such filing. All communications and documents are deemed to be officially

received when delivered at the office of the commission.

15.1(3) Suspension or alterations of rules. The commission may in its discretion on its own motion, or upon request, amend, modify or suspend any of these rules.

15.1(4) Examiners. Hearings will be conducted by the commission.

Examiners may be designated by the commission to preside at and conduct hearings and shall have the following authority:

a. To regulate the course of hearings, the recessing, reconvening and adjournment thereof, unless otherwise ordered by the commission;

b. To administer oaths and affirmations;

c. To rule upon the admissibility of evidence and offers of proof;

d. To take or cause depositions to be taken;

e. To dispose of procedural matters and to dispose of motions to dismiss proceedings or other motions which involve final determination of proceedings, subject to review by the commission upon application by the aggrieved party;

f. Within their discretion, or upon direction of the commission, to certify any question to the commission for its consideration and disposition;

g. To permit the filing of written briefs, if any, and to fix the conditions thereof and the time in accordance with 15.7(12) and to provide for the service thereof on the parties;

h. To hold appropriate conferences before or during hearings;

i. To take any other action necessary or appropriate to the discharge of the duties vested in them, consistent with law and with the rules, regulations and orders of the commission.

15.2(490A) Matters applicable to all proceedings.

15.2(1) Service of papers. The notice or other papers which are required to be served may be served personally or by depositing in the United States mail properly addressed with postage prepaid and when any party has appeared by attorney, such service upon the attorney shall be deemed proper service upon the party.

15.2(2) Parties entitled to service. All parties in any proceeding shall be served with all notices, motions, pleadings or orders filed or issued in said proceeding.

15.2(3) Orders of the commission. All orders made by the commission will be filed in the office of the commission in Des Moines. Orders of the commission shall be deemed to become effective upon entry by the commission unless otherwise provided in the order.

15.2(4) Forms of papers. The commission suggests the following guides and reserves the right to, and may, require compliance if

the commission deemed such compliance to be necessary or desirable:

a. All papers filed in any proceeding should be legible in typing, printing or long-hand.

b. If typewritten or in longhand, the impression should be only one side of the paper, and lines should be double spaced, except that long quotations may be single spaced, and indented. Mimeographed, multi-graphed, hectographed, photostated or plano-graphed papers, and the like, will be accepted as typewritten.

c. If printed, the paper should be unglazed, and the printing should be in clear type adequately leaded.

d. All papers, except exhibits, should be cut or folded so as not to exceed a width of eight and one-half inches and a length of fourteen inches, and should have inside margins not less than one inch wide. Whenever practical, all exhibits of a documentary character should conform to said requirements of size and margin.

e. Pleadings such as complaints, written motions, notices and applications for further hearing or rehearing should contain the address of the party filing the paper or if represented by an attorney, the name and business address of such attorney, the caption "Before the Iowa State Commerce Commission", and docket number, if any, assigned to the proceeding.

15.2(5) Number of copies of pleadings. Upon filing application, complaint or other pleading, the person filing the same should file an original and three copies thereof with the commission and furnish additional copies for each and every respondent or party to be served by the commission and such other copies as the commission may request.

15.2(6) Copies of exhibits. An original and three copies of all exhibits, rate compilations, statistical and other tabulated statements which any applicant intends to offer in evidence other than in rebuttal, must be filed with the commission not later than the beginning of the first day of the first hearing unless otherwise provided by the commission. One copy of such exhibits, compilations or statements shall be furnished to each party upon request. Any other party desiring to introduce any exhibit during the course of a hearing shall furnish an original and three copies of such exhibits for the use of the commission, and one copy to each party upon request, unless otherwise provided by the commission.

15.2(7) Parties.

a. The parties to proceedings before the commission are complainants, petitioners, applicants, respondents and intervenors. The term corporation as used herein shall include municipal corporation.

"Complainants" are persons, corporations or associations who complain to the commission by written complaint of any act or things

done or omitted to be done in violation, or claimed to be in violation, of chapter 490A of the Code, or of any order or rule of the commission shall be deemed a complainant in any proceeding initiated on its own motion.

"Petitioners" and "applicants" are parties who by written petition, application or filing, apply for or seek relief from the commission, and who are not otherwise designated in this rule.

"Respondents" are parties against whom a complaint or petition is filed, or who by reason of interest or possible interest in the subject matter of a petition or application or the relief sought therein are made respondents, or to whom an order is directed by the commission initiating a proceeding.

"Intervenor" are persons, corporations (including municipal corporations), associations or public authorities who upon written petition, are permitted to intervene in any proceeding before the commission; provided that, in the case of any inquiry, investigation or hearing on any matter relating to rates or other charges or services within any city or town such city or town may become a party to the proceeding and an intervenor by filing with the commission its written appearance.

b. Any party to the proceeding may appear and be heard by an attorney at law authorized to practice in the state of Iowa. A natural person may appear and be heard in his own behalf. A corporation or association may appear and present evidence by any bona fide officer or employee, provided however, only persons admitted to practice as attorneys and counselors at law shall represent a party in proceedings before this commission in any matter involving the exercise of legal skill or knowledge except with consent of the commission. All persons appearing in proceedings before this commission shall conform to the standard of ethical conduct required of attorneys before the courts of Iowa. If any person does not conform to such standards, the commission may decline to permit such person to appear in any proceeding.

c. The commission or its examiner may permit all persons, corporations, associations or public authorities to be heard, to examine and cross-examine witnesses, but they shall not be parties to the proceedings unless so designated in paragraph "a" of this rule, provided, however, that testimony or statement of any person so appearing shall be given under oath and that such person shall be subject to cross-examination by the parties to the proceeding.

d. The commission's staff, its representatives and agents may appear at any hearing and shall have all rights of participation as a party to the proceeding.

15.2(8) *Method of intervention.* The request to intervene in a proceeding shall be by petition to intervene filed at least five days prior to the time said matter is called for hearing, but not afterward, except for good cause shown.

The petition must be in writing and shall contain (1) the name of the petitioner; (2) the grounds of the proposed intervention; (3) the position and interest of the petitioner in the proceeding; (4) a prayer for leave to intervene and be treated as a party to the proceeding; and (5) if affirmative relief is sought, specific prayers for such relief, which may be in the alternative. Such petitions must be accompanied by the affidavit of a person with knowledge as to the facts set forth in the petition.

The commission may, in its discretion, grant or deny such petition or may permit intervention by such person limited to particular issues or to a particular stage of the proceeding.

The granting of any petition to intervene shall not have the effect of changing or enlarging the issues specified in the commission's notice of hearing, unless the commission shall, on motion, amend the same.

15.2(9) *Amendments to pleadings.* Amendments to pleadings may be allowed upon proper motion at any time during the pendency of the proceeding upon such terms as shall be just and reasonable.

15.3(490A) *Complaints.*

15.3(1) *Complaints.* Complaints shall be handled by the commission as provided by section 3, chapter 490A of the Code.

15.3(2) *Form of complaints.* The commission at its discretion may require a complaint to be in writing in substantially the following form:

BEFORE THE IOWA
STATE COMMERCE COMMISSION
(Insert name of complainant)
Complainant)
(Insert name of each respondent)
Respondent)
NO.
(To be inserted by the Secretary of the
Commission if not assigned)

COMPLAINT

The complaint of (*here insert full name of such complainant*) respectfully shows:

(1) That (*here state name, occupation, and post-office address of each complainant*) is (are) complainant(s) herein;

(2) That (*here state name, occupation, and post-office address of each respondent*) is (are) respondent(s) herein;

(3) That (*here insert fully and clearly the specific act or thing complained of, such facts as are necessary to give a full understanding of the situation, and the law, order, or rule, and the section or sections thereof, of which a violation is claimed. Be specific and detailed.*)

WHEREFORE, complainant asks (*here state specifically the relief desired*).

Dated atIowa, this
.....day of
19.....

.....
 (Name of each complainant)

.....
 (Name and address of attorney if any)

15.3(3) Dismissal of complaints. Complaints may be dismissed by the commission upon the filing of an application for dismissal, stating the reasons therefore, by the complainant or the respondent, or upon the motion of the commission.

15.4(490A) Applications and petitions.

15.4(1) Form of applications and petitions. All applications and petitions shall be in writing. An original and three copies of the application or petition shall be filed. The application or petition must set forth the full name and post office address of the applicant or petitioner and must contain an adequate statement of facts on which the application or petition is based, with a request for an order, authorization, permit or franchise desired.

15.4(2) Dismissal of applications and petitions. Applications and petitions may be dismissed by the commission upon the filing of an application for dismissal, stating the reasons therefore, by the applicant or petitioner, or upon the motion of the commission.

15.4(3) Applications filed in accordance with the provisions of section 7, chapter 490A, of the Code.

a. Any public utility filing an application with the commission requesting a determination of the reasonableness of its rates, charges, schedules, service or regulations shall submit at the formal proceeding ordered by the commission as a result of such application, all information and data, by means of testimony or exhibits, necessary for the commission to make such determination. All such testimony and exhibits shall be given or presented by competent witnesses, under oath or affirmation, and the proceeding itself shall be governed by the applicable provisions of 15.1, 15.2 and 15.3 of these rules.

b. Unless otherwise specifically authorized by the commission, rates and charge determinations shall not be heard in the same proceeding as one for service.

c. All of the foregoing requirements shall likewise apply in the event the commission shall, on its own motion, initiate a formal proceeding to determine the reasonableness of a public utility's rates, charges, schedules, service or regulations.

15.4(4) Tariffs or sheets to be filed on thirty days' notice. No public utility subject to rate regulation shall make effective any new or changed rate, charge, schedule or regulation except by filing the same with the commission at least thirty days prior to the effective date thereof. The commission, for good cause shown, may allow changes in rates, charges, schedules or regulations to become effective on less than thirty days' notice.

15.4(5) Letter of transmittal. All tariffs and all additional original or revised sheets of tariffs and the accompanying letter of transmittal shall be filed with the commission in duplicate and shall include or be accompanied with such information as is necessary to explain the nature, effect, and purpose of the tariff or additional original or revised sheet submitted for filing. Such information shall include, when applicable:

- a.* The amount of the aggregate annual increase or decrease proposed.
- b.* The names of communities affected.
- c.* The number and classification of customers affected.
- d.* A summary of the reasons for filing and such other information as may be necessary to support the proposed changes.

15.4(6) Evidence. Unless otherwise authorized by the commission, a utility shall when proposing changes in tariffs or rate schedules, which changes relate to a general increase in revenue, prepare and submit with its proposed tariff the following evidence:

a. Factors relating to value. A statement showing the original cost of the items of plant and facilities, for the beginning and end of the last available calendar year, any other factors relating to the value of the items of plant and facilities the utility deems pertinent to the commission's consideration, together with information setting forth budgeting accounts for the construction of scheduled improvements.

b. Comparative operating data. Information covering the latest available calendar year immediately preceding the filing date of the application.

(1) Operating revenue and expenses by primary account.

(2) Balance sheet at beginning and end of year.

c. Test year and pro forma income statements. Schedules setting forth revenues, expenses, net operating income of the last available calendar year, the adjustment of unusual items and by adjustment to reflect operations for a full year under existing and proposed rates.

d. Additional evidence. The applicant may submit any other schedules, exhibits and data which it deems pertinent to the application.

15.4(7) Evidence requested by the commission. The applicant shall furnish any additional evidence as ordered by the commission at any time after the filing of the tariff.

15.4(8) Notice of changes of tariffs. Notice of changes in tariffs or the filing of new tariffs shall be given to all cities, towns and counties affected by such changes by notifying the mayors and the chairmen of the boards of supervisors of such cities, towns and counties, respectively, by ordinary mail not more than fifteen days following the filing of such

changes in tariffs or new tariffs with the commission. Proof of mailing of such notice shall be filed with the commission prior to the effective date of such changes in tariffs or new tariffs filed with the commission.

The commission may, in its discretion, waive the foregoing notice or require additional notice to be given. Failure of a mayor or chairman of a board of supervisors to receive a copy of the notice herein prescribed shall not invalidate such notice.

15.4(9) General publicity. Whenever changes in rates or regulations are put into effect under the provisions of section 6 of chapter 490A, of the Code, allowing such rates, charges, schedules or regulations to be placed into effect under bond or by any other undertaking approved by the commission, ninety days subsequent to the filing of such changes, the utility shall acquaint the public with the changes by notifying the mayors of the cities and towns and the chairmen of the boards of supervisors of the counties, respectively, affected by such changes in the manner provided in 15.4(8).

15.5(490A) Answers.

15.5(1) Time for. Answers to complaints, petitions, applications or other pleadings shall be filed with the commission within twenty days after the day on which such pleadings are served upon the respondent or other party unless otherwise ordered. The answer must specifically admit, deny or otherwise answer all material allegations of the pleadings and also briefly set forth the affirmative grounds relied upon to support such answer.

If the party fails to file an answer, issue as to such party will be considered joined.

15.5(2) Motion to dismiss. Any party who deems the complaint, petition, application or other pleading insufficient to show a breach of legal duty or grounds for relief may, instead of answering, move to dismiss. In such case, the facts stated in said pleadings will be deemed admitted for the limited purpose of determining the merits of said motion.

15.6(490A) Notice.

15.6(1) Service of notice.

a. The commission will prescribe such notices as are required by law in hearings contemplated in sections 3, 6, and 7 of chapter 490A, of the Code. All other pleadings, including briefs, applications for further hearing or rehearing, and notices of appeal shall be served by the party filing same upon all parties to the proceeding, unless otherwise ordered by the commission. Proof of service shall accompany the filing with the commission.

b. Proof of service of any paper shall be by certificate of attorney, affidavit or acknowledgment.

c. Unless otherwise provided by the commission, service shall be made by deliver-

ing in person or by depositing in the United States mail, properly addressed with postage prepaid, one copy to each party entitled thereto. When any party or parties have appeared by attorney, service upon the attorney shall be deemed service upon such party or parties.

d. Answers, intervening petitions, supplemental complaints and petitions, amendments to proceedings, written motions, affidavits in support of such motion, shall be served by the party filing the same upon all parties to the proceeding and shall be accompanied by proof of service upon such parties.

e. See 15.4(8).

15.7(490A) Investigation and hearings.

15.7(1) Investigations. The commission may at any time, on its own motion, investigate and inquire into the management of the business of any public utility, and, if it deems necessary, initiate investigations, issue subpoenas to require the attendance and testimony of witnesses, the production of all books, papers, tariff schedules, contracts, agreements and documents of the utility under investigation, and to inspect the same and to examine under oath or otherwise any officer, director, agent, or employee of any public utility.

The commission may also, through its own experts or employees, or otherwise, obtain such information as it may consider necessary or desirable in any investigation.

15.7(2) Hearings. When the commission orders a hearing, witnesses shall be examined orally under oath or affirmation and their testimony shall be taken down and made a part of the record, or depositions may be taken under oath or affirmation upon such notice as is herein prescribed. The commission does not furnish copies of the record but in the event that any person, whether or not a party to the proceedings, shall desire a copy thereof, the same will be furnished by the reporter, upon request, in a reasonable time at a rate not exceeding the legal rate authorized by law.

15.7(3) Witnesses and subpoenas. At the direction of the commission, subpoenas may be issued by the commission for the attendance of witnesses or for the production of books, papers, records, accounts or documents at a hearing in a pending proceeding. Such subpoenas may be issued upon the motion of the commission or upon application of any party to the proceeding in writing incorporating a showing that any such subpoena is reasonably required and specifying as nearly as possible the books, papers, records, accounts or documents desired to be produced and the material or relevant facts to be proved by them.

15.7(4) Stipulations. The parties to any proceeding or investigation before the commission may, by stipulation in writing filed with the commission, agree upon the facts or any portion thereof involved in the contro-

versy, subject to approval by the commission or the examiner.

15.7(5) Objections and exceptions. When objections are made to the admission or exclusion of evidence before the commission, the grounds relied upon shall be stated briefly. Formal exceptions are unnecessary.

15.7(6) Order of procedure. At hearings on complaints, the complainant shall open and close. At hearings upon applications, the applicant shall open and close. At hearings on investigations, the commission or examiner may direct who shall open and close, but when the investigation is on the motion of the commission, the commission's staff or its representatives shall open and close. In hearings on several proceedings on a consolidated record, the commission or examiner shall designate who shall open and close. Intervenor shall follow the parties in whose behalf the intervention is made, and, in all cases where the intervention is not in support of either original party, the commission or examiner will designate at what stage such intervenors shall be heard. The commission or examiner may direct departures from the foregoing order or procedure in its or his discretion.

15.7(7) Calling for further evidence. At any stage of the hearing, or after the close of testimony, but prior to brief having been filed, the commission or examiner may call for further evidence upon any issue, and may require such evidence to be presented by the party or parties concerned or by the staff of the commission.

15.7(8) Depositions. The commission or examiner, either upon its or his own motion, or upon application in writing by any party, may cause the depositions of witnesses residing within or without the state to be taken in the manner prescribed by law for like depositions in civil actions in the district courts of the state of Iowa.

15.7(9) Documentary evidence. When any material or relevant matter offered in evidence by any party is embraced in a book, paper or document containing other matter not material or relevant, the party offering the same shall plainly designate the matter so offered. If in the judgment of the commission or examiner, such immaterial or irrelevant matter would unnecessarily encumber the record, such book, paper or document will not be received in evidence as a whole, but the material or relevant portions thereof, if otherwise admissible, may be read into the record or a true copy thereof supplied in the form of an exhibit.

Any matter contained in a report or other document on file with the commission may be offered in evidence by merely specifying the report, document, or other file containing the matter so offered. The commission or examiner on its or his own motion or upon a motion of any party, may require the offering party to designate specifically the portion of the report

document or other file offered in evidence and the purpose for which it is offered.

15.7(10) Appeals to commission from ruling of hearing examiner. Any party objecting to a ruling of the examiner may present his objections to the commission in writing within five days. Such procedure will not be permitted to delay proceedings.

15.7(11) Motions. Motions, unless made during the hearings, shall be made in writing, shall set forth the relief or order sought and shall be filed with the secretary of the commission. Motions based on matter which does not appear of record shall be supported by affidavit.

15.7(12) Brief and oral arguments. At the discretion of the commission or examiner oral arguments may be had by the parties with right of the commission or examiner to limit the time thereof and either party may have the right to furnish briefs. The commission or examiner shall designate the order in which oral arguments and briefs shall be made and filed.

15.7(13) Reopening hearing. At any time after the closing of a hearing but before the issuance of an order by the commission, any party to the proceedings may file with the commission or the examiner a petition to reopen the proceedings for the purpose of taking additional evidence. Copies of such petition shall be served upon all parties or their attorneys of record. Within ten days after the service of any such petition, any other party to the proceeding may file with the commission or the examiner his response to such petition.

Any time prior to the issuance of an order by the commission, after notice to the parties and an opportunity to be heard, the commission or examiner may reopen the proceedings for the reception of further evidence on the commission's or the examiner's own motion.

15.8(490A) Rehearings.

15.8(1) Application for rehearing. All applications for rehearing will be made and processed in accordance with section 12, chapter 490A of the Code.

15.8(2) Contents of application. Applications for rehearing after decision made by the commission must state specifically the grounds upon which the application is based and must specify the findings of fact and conclusions of law claimed to be erroneous, with a brief statement of the grounds of error.

15.9(490A) Prehearing procedure.

15.9(1) Prehearing conference. An informal conference of parties may be ordered at the discretion of the commission or examiner or at the request of any party prior to a hearing in any proceeding.

a. For the purpose of formulating issues and considering:

- (1) The simplification of issues.

(2) The necessity of desirability of amending the pleadings either for the purpose of clarification, amplification, or limitation.

(3) The possibility or making admissions of certain averments of fact or stipulations thereof, to the end of avoiding unnecessary proof.

(4) The procedure at the hearing.

(5) The propriety of prior mutual exchange between or among the parties of prepared testimony and exhibits.

(6) Such other matters as may aid in the simplification of the evidence and disposition of the proceeding.

b. Recordation. Action agreed upon at the conference shall be made a part of the record in such manner as may be prescribed by the commission or examiner at the close of the conference.

15.9(2) Offers of settlement. Nothing contained in this section shall be construed as precluding any party to a proceeding from submitting at any time offers of settlement or proposals of adjustment to all parties and to the commission (or to staff counsel for transmittal to the commission), or from requesting conferences for such purpose.

The fact that proposals of settlement or of adjustment or as to procedure to be followed and proposed stipulations have been made by any party but not agreed to by parties to whom offered shall be privileged and shall not be admissible in evidence against any counsel or parties claiming such privilege.

[Filed February 18, 1966]

CHAPTER 16 ACCOUNTING

16.1(490A) Uniform systems of accounts—electric. The 1958 uniform systems of accounts for Class A, B, C, and D electric utilities, including editorial and clarifying changes as of June, 1960, of the National Association of Railroad and Utilities Commissioners, are adopted with the following modifications:

16.1(1) General instruction 1-A of the uniform systems of accounts for electric utilities is changed for Class D electric utilities to read: "Utilities having annual electric operating revenues of less than \$150,000.00."

16.1(2) General instruction 1-B of the uniform systems of accounts for electric utilities is modified by adding the following sentence: "Utilities subject to rate regulation by the commission shall keep all the accounts of this system of accounts which are applicable to their affairs and utilities not subject to rate regulation shall keep the accounts of these systems of accounts for operating revenue only."

16.1(3) General instruction 1-D of the uniform systems of accounts for electric utilities is modified by adding the following sentence: "It is recommended but not required that elec-

tric utilities not subject to rate regulation keep all applicable accounts as recommended for Class A, B, C and D utilities."

16.1(4) General instruction 2-D of the uniform systems of accounts for electric utilities is modified by adding the following sentence: "This shall not prohibit the electric utilities from using such additional accounts as they are required or permitted to keep for their reporting to other regulatory authorities or to their stockholders providing the commission is notified of the nature, amount and purpose of such accounts in the annual report to the commission and at such other times as may be requested by the commission."

16.2(490A) Uniform systems of accounts—gas. The 1958 uniform systems of accounts for Class A, B, C and D gas utilities, including editorial and clarifying changes as of June, 1960, of the National Association of Railroad and Utilities Commissioners, are adopted with the following modifications:

16.2(1) General instruction 1-A of the uniform systems of accounts for gas utilities is changed for Class D gas utilities to read: "Utilities having annual gas operating revenues of less than \$150,000.00."

16.2(2) General instruction 1-B of the uniform systems of accounts for gas utilities is modified to add the following sentence: "Gas utilities subject to rate regulation by the commission shall keep all the accounts of this system of accounts which are applicable to their affairs and gas utilities not subject to rate regulation shall keep the accounts of this system of accounts for operating revenue only."

16.2(3) General instruction 1-D of the uniform systems of accounts for gas utilities is modified by adding the following sentence: "It is recommended but not required that gas utilities not subject to rate regulation keep all applicable accounts as recommended for Class A, B, C and D gas utilities."

16.2(4) General instruction 2-D of the uniform systems of accounts for gas utilities is modified by adding the following sentence: "This shall not prohibit the gas utilities from using such additional accounts as they are required or permitted to keep for their reporting to other regulatory authorities or to their stockholders providing the commission is notified of the nature, amount and purpose of such accounts in the annual report to the commission and at such other times as may be requested by the commission."

16.3(490A) Uniform systems of accounts—water. The 1957 uniform systems of accounts for Class A, B, C and D water utilities, including editorial and clarifying changes as of June, 1960, of the National Association of Railroad and Utilities Commissioners are adopted with the following modifications:

16.3(1) General instruction 2-D of the uniform systems of accounts for water utilities

is modified by adding the following sentence: "This shall not prohibit the water utilities from using such additional accounts as they are required or permitted to keep for their reporting to other regulatory authorities or to their stockholders providing the commission is notified of the nature, amount and purpose of such accounts in the annual report to the commission and at such other times as may be requested by the commission."

16.4(490A) Uniform systems of accounts—telephone. The uniform systems of accounts for telephone utilities adopted by the F.C.C., editorial revision effective December 7, 1963, are adopted with the following modifications:

16.4(1) The general instructions of the F.C.C. uniform systems of accounts for Class A and Class B telephone companies are modified by adding to general instructions, section 31.01-1 the following instruction: "(h) The preceding paragraphs "b," "c," and "d" are modified to provide that telephone utilities subject to rate regulation by the commission shall keep all the accounts of this system of accounts which are applicable to their affairs and telephone utilities not subject to rate regulation shall keep the accounts of this system of accounts for operating revenues only. It is recommended but not required that telephone utilities not subject to rate regulation keep accounts as recommended for Class A, B, C and D companies."

16.4(2) The general instructions of the F.C.C. uniform systems of accounts for Class A and Class B telephone companies, section 31.2-26, are modified to insert after the title: "This section applies only to those companies which are required by the F.C.C. to maintain continuing property records."

16.4(3) The general instructions of the F.C.C. uniform systems of accounts for Class C telephone companies are modified by adding to general instructions, section 33.1 "b" the following: "Telephone utilities subject to rate regulation by the commission shall keep all the accounts of this system of accounts which are applicable to their affairs and telephone utilities not subject to rate regulation shall keep the accounts of this system of accounts for operating revenues only. It is recommended but not required that telephone utilities not subject to rate regulation keep accounts as recommended for Class A, B, C or D companies."

16.4(4) The general instructions of the F.C.C. uniform systems of accounts for Class A, B and C telephone companies are modified by adding the following sentence: "This shall not prohibit the telephone companies from using such additional accounts as they are required or permitted to keep for their reporting to other regulatory authorities or to their stockholders, providing the commission is notified of the nature, amount and purpose of such accounts in the annual report to the commis-

sion and at such other times as may be requested by the commission."

16.5(490A) Uniform systems of accounts—telegraph. The uniform systems of accounts for telegraph utilities adopted by the F.C.C., editorial revision, effective December 7, 1963, are adopted with the following modifications:

16.5(1) The general instructions of the F.C.C. uniform systems of accounts for telegraph companies are modified by adding the following sentence: "This shall not prohibit the telephone companies from using such additional accounts as they are required or permitted to keep for their reporting to other regulatory authorities or to their stockholders, providing the commission is notified of the nature, amount and purpose of such accounts in the annual report to the commission and at such other times as may be requested by the commission."

[Filed January 17, 1964]

CHAPTER 17 ASSESSMENTS

17.1(490A) Definition of "direct assessment." The charge to a particular public utility for expenses incurred by the commission for the purpose of determining rate matters to investigate the books, accounts, practices, and activities of, or make appraisals of the property of, or to render any engineering or accounting services to any public utility.

17.2(490A) Definition of "remainder assessment." The charge to all public utilities for the annual expenses reasonably attributable to the performance of the commission's duties prescribed by chapter 490A of the Code, after deducting the direct assessments and excluding the salaries of the commissioners.

17.3(490A) Notice of investigation and of intention to assess costs. The commission shall notify any utility to be assessed of the commission's intention to assess the costs incurred in any matter for which direct assessment can be made.

17.4(490A) Expenses to be included in direct assessments.

17.4(1) Salaries of commission employees, which will be computed on an hourly rate obtained by dividing the individual's annual salary, and related benefit costs borne by the state, by the appropriate number of standard working hours for the year. The time of all commission employees engaged on the matter for which a direct assessment is to be made, whether on the property of the public utility, in the offices of the commission, or elsewhere, including travel time, will be included. The maximum chargeable time per person shall not exceed eight hours per day or forty hours per week.

17.4(2) Travel expenses incurred in an investigation or in rendering services by com-

mission personnel or by others employed by the commission will be charged to the utility. Travel expenses include costs of transportation, lodging, meals, and other normal expenses attributable to traveling.

17.4(3) Whenever the commission finds it necessary to engage persons, facilities, or equipment for consulting advice, particular projects or services arising out of investigations, the cost to the commission of such special services, facilities, or equipment, shall be chargeable to the public utility under investigation.

17.5(490A) Definition of "gross operating revenues derived from intrastate public utility operations." All revenues from intrastate operations includable in the operating revenue accounts of the prescribed uniform systems of accounts and operating revenues from the sale of heat; provided, however, that such revenues shall not include the following: (a) Uncollectible revenues; (b) Amounts included in the accounts for interdepartmental sales and rents.

17.6(490A) Reporting of operating revenues. Every public utility shall file with the commission on or before April 1 of each year a verified report, on forms prescribed by the commission, showing its gross operating revenues derived from intrastate public utility operations during the preceding calendar year. Such revenues are to be reported on the accrual basis or the cash basis consistent with the annual report filed with the commission.

17.7(490A) Compilation of assessment. The revenues for the remainder assessment shall be compiled by the commission and each utility assessed in proportion to its respective gross operating revenues during the last calendar year. The bill or accompanying letter of transmittal to each utility shall indicate the assessable revenue for the utility, the rate at which the assessment was computed, and the assessment amount. Utilities not subject to rate regulation will be assessed at one-half the rate assessed those subject to such regulation.

[Filed September 14, 1965]

CHAPTER 18 UTILITY RECORDS

18.1(490A) Definitions of "NARUC Rules." The "Regulations to Govern the Preservation of Records of Electric, Gas, and Water Utilities, Revised 1963," as published by the National Association of Railroad and Utilities Commissioners.

18.2(490A) Definition of "Part 42—FCC Rules and Regulations." The unit of Volume X of the Rules and Regulations of the Federal Communications Commission officially designated as "Part 42, Preservation of Records of Communication Common Carriers," as adopted by the Federal Communications Commission

in Docket 13080 and published in the Federal Register on October 4, 1960 and as amended by Transmittal Sheet No. X-9 to Volume X of Rules and Regulations January, 1961 Edition, effective date September 1, 1965.

18.3(490A) The NARUC rules are adopted as a part of the rules of this commission and shall apply to any electric, gas, or water public utility which is subject to regulation of rates by this commission.

18.4(490A) Part 42—FCC rules and regulations, as amended by Transmittal Sheet No. X-9, is hereby adopted as a part of the rules of this commission and shall apply to any public utility furnishing communications services to the public for compensation and which is subject to regulation of rates by this commission.

18.5(490A) Supplementing the regulations of the NARUC and Part 42 — FCC rules and regulations, as amended by Transmittal Sheet No. X-9: the following addition is made to the general instructions of the NARUC and Part 42 — FCC rules and regulations as amended by Transmittal Sheet No. X-9:

Records of Service Performed by Associated Companies

Any public utility to which the rules and regulations governing the preservation of records apply shall assure the availability of records of services performed by associated companies for the period indicated herein, as are necessary, to support the cost of services rendered to it by an associated company.

This instruction shall apply to any public utility which is subject to regulation of rates by this commission.

[Filed November 16, 1965;
amended January 11, 1966]

CHAPTER 19 SERVICE SUPPLIED BY GAS UTILITIES

19.1(490A) General information.

19.1(1) Authorization of rules. Chapter 490A of the Code provides that the Iowa state commerce commission shall establish all needful, just and reasonable rules, not inconsistent with law, to govern the exercise of its powers and duties, the practice and procedure before it, and to govern the form, contents and filing of reports, documents and other papers necessary to carry out the provisions of this law.

Chapter 490 of the Code, provides that the Iowa state commerce commission shall have full authority and power to promulgate rules as it deems proper and expedient in the supervision of the transportation or transmission and underground storage of gas within the state of Iowa.

19.1(2) Application of rules. The rules shall apply to any gas utility operating within the state of Iowa as defined in chapter 490A of the Code and shall supersede all rules on file with this commission which are in

conflict with these rules. These rules are intended to promote safe and adequate service to the public, to provide standards for uniform and reasonable practices by utilities, and to establish a basis for determining the reasonableness of such demands as may be made by the public upon the utilities. If unreasonable hardship to a utility or to a customer results from the application of any rule herein prescribed, application may be made to the commission for the modification of the rule or for temporary or permanent exemption from its requirements. The adoption of these rules shall in no way preclude the commission from altering or amending them, pursuant to statute, or from making such modifications with respect to their application as may be found necessary to meet exceptional conditions. These regulations shall in no way relieve any utility from any of its duties under the laws of this state.

19.1(3) Definitions. The following words and terms, when used in these rules, shall have the meaning indicated below:

a. "Commission" means the Iowa state commerce commission, and sometimes hereinafter referred to as "ISCC".

b. "Utility" means any person, partnership, business association, or corporation, domestic or foreign, owning or operating any facilities for furnishing gas to the public for compensation.

c. "Customer" means any person, firm, association, or corporation, or any agency of the federal, state or local government, being supplied with gas service by a gas utility.

d. "Premises" means a piece of land or real estate, including buildings and other appurtenances or improvements thereon.

e. "Gas plant" means all facilities including all real estate, fixtures and property owned, controlled, operated or managed by a gas utility for the production, storage, transmission, and distribution of gas.

f. "Main" means a gas pipe, owned, operated, or maintained by a utility, which is used for the purpose of transmission or distribution of gas, but does not include "service pipe".

g. "Rate-regulated utility" means any utility as defined in definition "b" above which is subject to rate regulation provided for in chapter 490A of the Code.

h. "Service pipe" is the pipe that runs between a main or a pipeline and a regulator or meter on the customer's premises.

i. "Meter", without other qualification, shall mean any device or instrument which is used by a utility in measuring a quantity of gas.

j. "Check flow" means a flow between twenty percent and fifty percent of the rated capacity of a meter, except that with rotary displacement meters, it shall be ten percent or twenty percent of the rated capacity of the meter.

k. "Full-rated flow" means a flow of one hundred percent of the rated capacity of a meter.

l. "Cubic foot" of gas as used in these rules shall have the following meanings:

(1) Where gas is supplied and metered to customers at the pressure [as defined in 19.7(2)] normally used for domestic customers' appliances, a cubic foot of gas shall be that quantity of gas which, at the temperature and pressure existing in the meter, occupies one cubic foot, except that where a temperature compensated meter is used, the temperature shall be 60°F.

(2) When gas is supplied to customers at other than the pressure in (1) above, the utility shall specify in its rules the base for measurement of a cubic foot of gas [see 19.2(5) "c", (6)]. Unless otherwise stated by the utility, such cubic foot of gas shall be that quantity of gas which, at a temperature of 60°F. and a pressure of 14.73 pounds per square inch absolute, occupies one cubic foot.

(3) The standard cubic foot of gas for testing the gas itself for heating value shall be that quantity of gas, saturated with water vapor, which at a temperature of 60°F. and a pressure of 30 inches of mercury occupies one cubic foot. (Temperature of mercury = 32° F.; acceleration due to gravity = 32.17 ft. per second; density = 13.595 grams per cubic centimeter).

m. "Interruption of service" means any disturbance of the gas supply whereby the pilot flame on the appliances of at least fifty customers in one segment or in a portion of a distribution system shall have been extinguished.

n. The abbreviations used, and their meanings, are as follows:

BTU —British Thermal Unit
LP-Gas—Liquefied Petroleum Gas
psig —Pounds per Square Inch, Guage
W.C. —Water Column

o. "Appliance" refers to any device which utilizes gas fuel to produce light, heat or power.

p. "Tap" or "town border station" means the delivery point or measuring station at which a gas distribution utility receives gas from a natural gas transmission company.

q. "Gas" unless otherwise specifically designated, means manufactured gas, natural gas, other hydrocarbon gases, or any mixture of gases produced, transmitted, distributed or furnished by any gas utility.

r. "Pressure", unless otherwise stated, is expressed in pounds per square inch above atmospheric pressure, i.e., guage pressure (abbreviation — psig).

s. "Complaint" as used in these rules and regulations is a statement or question by anyone, whether a utility customer or not, alleging a wrong, grievance, injury, dissatisfaction, illegal action or procedure, dangerous condition or action, or utility obligation.

t. "Heating and calorific values". The following values shall be used:

(1) "British thermal unit" (BTU) is the quantity of heat that must be added to one avoirdupois pound of pure water to raise its temperature from 58.5°F. to 59.5°F. under standard pressure.

(2) "Dry calorific value" of a gas (total or net) is the value of the total or the net calorific value of the gas divided by the volume of dry gas in a standard cubic foot. (Note: The amount of dry gas in a standard cubic foot is .9826 cu. foot).

(3) "Net calorific value" of a gas is the number of British thermal units evolved by the complete combustion, at constant pressure, of one standard cubic foot of gas with air, the temperature of the gas, air, and products of combustion being 60°F. and all water formed by the combustion reaction remaining in the vapor state. (Note: The net calorific value of a gas is its total calorific value minus the latent heat of evaporation at standard temperature of the water formed by the combustion reaction).

(4) "Therm" means 100,000 British thermal units.

(5) "Total calorific value" of a gas is the number of British thermal units evolved by the complete combustion being 60°F. and all water formed by the combustion reaction condensed to the liquid state.

u. "Tariff" refers to the entire body of rates, rentals, charges, classifications and rules adopted and filed by a public utility for a single type of service.

19.2(490A) Records and reports.

19.2(1) Location of records. All records required by these rules or necessary for the administration thereof, shall be kept within this state, unless otherwise authorized by the commission. These records shall be reasonably accessible and available for examination by the commission or its authorized representatives at all reasonable hours.

19.2(2) Retention of records. Unless otherwise specified by the commission, all records required by these rules shall be preserved for the period of time specified in the revised 1963 edition of the National Association of Railroad and Utilities Commissioners' publication "Regulations to Govern the Preservation of Records of Electric, Gas and Water Utilities".

19.2(3) Tariffs to be filed with the commission. The utility shall file its tariff with the commission, and shall maintain such tariff filing in a current status. The schedules of rates of rate-regulated utilities and rules of all utilities shall be filed with the commission and shall be classified, designated, arranged and submitted so as to conform to the requirements of current tariff or rate schedule circulars and special instructions which have been or may from time to time be issued by the commission. Provisions of the schedules shall

be definite and so stated as to minimize ambiguity or the possibility of misinterpretation. The form identification and content of tariffs shall be in accordance with these rules.

Utilities which are not subject to the rate regulation provided for by chapter 490A of the Code shall not be required to file schedules of rates, or contracts primarily concerned with a rate schedule, with the commission but nothing contained in these rules shall be deemed to relieve any utility of the requirement of furnishing any of these same schedules or contracts which are needed by the commission in the performance of the commission's duties upon request to do so by the commission.

19.2(4) Form and identification. All tariffs shall conform to the following rules:

a. The tariff shall be printed, typewritten or otherwise reproduced on 8½ x 11 inch sheets of white paper equal in durability to twenty-pound bond paper with twenty-five percent cotton or rag content so as to result in a clear and permanent record. The sheets of the tariff should be ruled or spaced to set off a border on the left side suitable for binding. In the case of utilities subject to regulation by any federal agency the format of sheets of tariff as filed with the commission may be the same format as is required by the federal agency provided that the rules of the commission as to title page; identity of superseding, replacing or revision sheets; identity of amending sheets; identity of the filing utility, issuing official, date of issue, effective date; and the words "ISCC Tariff" shall apply in the modification of the federal agency format for the purposes of filing with this commission.

b. The title page of every tariff and supplement shall show in the order named:

(1) The first page shall be the title page which shall show:

ISCC GAS TARIFF
(Name of Public Utility)
Filed with
Iowa State Commerce Commission

date
(2) When a tariff is to be superseded or replaced in its entirety, the replacing tariff shall show in its title page that it is a revision of a tariff on file and the number being superseded or replaced, for example:

ISCC TARIFF NO.
SUPERSEDES ISCC TARIFF NO.

(3) When a partial tariff amends or adds to an original or amended tariff already on file, the partial tariff shall show on each amending page the designation of the original tariff and the number of any preceding amendment thus amended.

AMENDS ISCC TARIFF NO.
(Name of Public Utility)
EFFECTIVE

(4) When a new part of a tariff eliminates an existing part of a tariff it shall so state and clearly identify the part eliminated.

(5) Any tariff modifications as defined in "2", "3" or "4" above replacing tariff sheets shall be marked in the right margin with symbols as herein described to indicate the place, nature and extent of the change in text.

<i>Symbol</i>	<i>Meaning</i>
(C)	A change in regulation
(D)	A discontinued rate, treatment or regulation
(I)	An increased rate or new treatment resulting in increased rate
(N)	A new rate, treatment or regulation
(R)	A reduced rate or new treatment resulting in a reduced rate
(T)	A change in text but no change in rate, treatment or regulation

c. All sheets except the title page shall have, in addition to the above-stated requirements the following further information:

(1) Name of utility under which shall be set forth the words "ISCC Tariff". If the utility is not a corporation, and a trade name is used, the name of the individual or partners must precede the trade name.

(2) Issuing official and issue date.

(3) Effective date.

19.2(5) *Content of tariffs.* A tariff filed with the commission shall contain:

a. A table of contents containing a list of rate schedules and other sections in the order in which they appear showing the sheet number of the first page of each section.

b. All rates of utilities subject to rate regulation for service with indication for each rate of the type of gas and the class of customers to which each rate applies. There shall also be shown the prices per unit of service, and the number of units per billing period to which the prices apply, the period of billing, the minimum bill, method of measuring demands and consumptions, including method of calculating or estimating loads or minimums, and any special terms and conditions applicable. The discount for prompt payment or penalty for late payment, if any, and the period during which the net amount may be paid shall be specified.

c. A copy of the utility's rules, or terms and conditions, describing the utility's policies and practices in rendering service shall include:

(1) A statement as to the equivalent total heating value of the gas in BTU's per cubic foot on which their customers are billed. If necessary, this may be listed by district, division or community.

(2) The list of the items which the utility furnishes, owns, and maintains on the customer's premises, such as service pipe, meters, regulators, vents, and shut-off valves.

(3) General statement indicating the extent to which the utility will provide service in the adjustment of customer appliances at

no additional customer charge over the filed commodity rates of rate-regulated utilities or commodity rates charged by nonrate-regulated utilities.

(4) General statement of the utility's policy in making adjustments for wastage of gas when such wastage occurs without the knowledge of the customer.

(5) A statement indicating the minimum number of days allowed for payment of the gross amount of the customer's bill before service will be discontinued for nonpayment.

(6) A statement indicating the volumetric measurement base to which all sales of gas at other than standard delivery pressure are corrected.

(7) Forms of standard contracts required of customers for the various types of service available.

(8) A copy of each standard and special contract for the purchase, sale or interchange of gas.

(9) A copy of each type of customer bill.

(10) The name, title, address, and telephone number of the person who is authorized to receive, act upon and respond to communications from the commission in connection with; (a) general management duties; (b) customer relations (complaints); (c) engineering operations; (d) meter tests and repairs; (e) emergencies during nonoffice hours; (f) pipe-line permits (gas).

(11) The utility shall keep the commission informed currently by written notice of the location at which the utility keeps the various classes of records required by these rules.

(12) List of towns, cities, and unincorporated communities where urban rates are applicable, and towns in which service is furnished.

(13) Definitions of classes of customer.

(14) Extension rules for extending service to new customers indicating what portion of the extension or cost thereof will be furnished by the utility; and if the rule is based on cost, the items of cost included as required in 19.3(10).

(15) Rules with which prospective customers must comply as a condition of receiving service, and the terms of contracts required.

(16) Rules governing the establishment of credit by customers for payment of service bills.

(17) Rules governing disconnecting and reconnecting service.

(18) Notice required from customer for having service discontinued.

(19) Rules covering temporary, emergency, auxiliary, and stand-by service.

(20) Rules shall show any limitations on loads and covering the type of equipment which may or may not be connected.

(21) The list of service areas and the rates where rate control is authorized by law shall be filed in such form as to facilitate ready determination of the rates available in each municipality and in such unincorporated communities as have service at urban rates. If the utility has various rural rates, the areas where the same are available shall be indicated.

(22) A notification to the commission shall be made of any planned change in rate of service by a utility even though the change in rate of service is provided for in its tariff filing with the commission. This information shall reflect the amount of increase or decrease and the effective date of application. An up-to-date tariff sheet shall be supplied to the Iowa state commerce commission for its copy of tariff showing the current rates.

19.2(6) Annual, periodic and other reports to be filed with the commission. A utility shall file annually with the commission a verification that it has a currently correct set of utility system maps for each operating or distribution area. The maps shall show:

- a. Gas production plant.
- b. Principal storage holder.
- c. Peak shaving facilities location.
- d. Feeder and distribution mains indicating size and pressure.
- e. System metering (town border stations and other supply points.)
- f. Regulator stations in system indicating inlet and outlet pressures.
- g. Calorimeter location.
- h. State boundary crossing.
- i. Franchise area.
- j. Names of all communities (post offices) served.

19.2(7) Accident reports. Any person, company, corporation, city or town operating gas supply lines shall report in writing to the commission, all accidents to employees or other persons resulting in fatalities or burns, fractures, dislocations or internal or other injuries, which are directly traceable to the utility's operations of manufacturing or mixing gases or the transmission and distribution of gas and accidents resulting in property loss in excess of \$10,000; such written report shall indicate the following information:

- a. The name, address and age of the person or persons involved in the accident.
- b. The time and place where the accident occurred.
- c. Description of injuries including extent, severity and location on injured person (s).
- d. The cause of the accident in detail.
- e. The name of the individual, company, corporation, city or town operating the gas supply line.

Prompt notice, by telephone or telegraph, shall be given to the gas engineering section of the commission during office hours by the

utility of any accident which has resulted in a fatality.

19.2(8) Construction programs. A utility shall notify the Iowa commerce commission of all proposed important additions to plant, including main extensions, the construction of which was started by the utility during the preceding month. For the purposes of this rule, an important addition to plant shall mean a single project involving the expenditure of at least \$5,000 for other than main construction, or in the case of main construction, an expenditure of \$30,000.

19.2(9) Reports of gas service. Each utility shall compile a monthly record of the following operations within thirty days after the end of the month covered and such record shall upon and after compilation be kept available for inspection by the commission or its staff at the principal utility's office within the state of Iowa. Such record shall contain:

- a. The daily and monthly average of total heating values of gas in accordance with 19.7(7).
- b. The monthly acquisition and disposition of gas.
- c. Interruptions of service occurring during the month in accordance with 19.7(10). If there were no interruptions, then it should be so stated.
- d. The number of customer pressure investigations made and the results.
- e. The number of customer meters tested and test results tabulated as follows: The number that fall into limits 0 to +2%, +2 to +4%, -2 to -4%, over +4%, under -4%, and "Does Not Register" in accuracy.
- f. Progress on leak survey program including the number of leaks found during the month classified as to nature of leaks and causes.

g. Number of district regulators checked and nature of repairs required.

h. Number of house regulators checked and nature of repairs required.

i. Description of usual types of operating difficulties.

j. Type of odorant and monthly average pounds per million cubic feet used in each individual distribution system.

A summary of the twelve monthly gas service records for each calendar year shall be attached to and submitted with the utility's annual fiscal plant and statistical report to the commission.

19.2(10) The utility shall keep the commission informed currently by written notice as to the location at which the utility keeps the various classes of records required by these rules.

19.2(11) A copy of the utility's current rules, if any, published or furnished by the utility for the use of engineers, architects, plumbing contractors, etc., covering meter and service installation shall be filed with the commission.

19.2(12) A copy of each type of customer bill form in current use shall be filed with the commission.

19.2(13) Prompt notice by telephone or telegram shall be given the gas engineering section of the commission by a utility in the event of interruption of service as defined in 19.1(3) "m" of these rules.

19.2(14) Each utility shall file such other monthly, periodic and annual reports as are requested by the commission. Monthly and periodic reports shall be due in the commission's office within thirty days after the end of the reporting period. All annual reports shall be filed with this commission by April 1 of each year for the preceding calendar year.

19.3(490A) General service requirements.

19.3(1) Disposition of gas. All gas sold by a utility shall be on the basis of meter measurement unless otherwise authorized by the commission. Wherever practicable, consumption of gas within the utility itself, or by administrative units associated with it, shall be metered. All service on the premises of the customer (except those customers who prior to the effective date of this order have been allowed to submeter service) shall be sold directly by the utility and such a customer shall not directly sell or submeter such service to a third party except the indirect reselling of utility service by a utility customer which is included as an unidentified part of fixed rentals will not be considered submetering.

19.3(2) Condition of meter. No meter shall be installed or continued in service which is known to be mechanically defective, has an incorrect correction factor or has not been tested, and adjusted, if necessary, in accordance with 19.6(490A) and 19.6(3). The capacity of the meter and the index mechanism should be consistent with the gas requirements of the customer.

19.3(3) Meter reading sheets or cards. The meter reading sheets, cards or ledger sheets shall show:

- a. Customer's name, address, rate schedule, or identification of rate schedule.
- b. Identifying number and/or description of the meter(s).
- c. Meter readings.
- d. If the reading has been estimated.
- e. Any applicable multiplier or constant, or reference thereto.

19.3(4) Meter charts. All charts taken from recording meters shall be marked with the initial and final date and hour of the record, the meter identification, customer's name and location and the chart multiplier.

19.3(5) Meter multiplier. If it is necessary to apply a multiplier to the meter readings, the multiplier must be marked on the face of the meter register or stenciled in weather resistant paint upon the front cover of the meter.

19.3(6) Prepayment meters. Prepayment meters shall not be geared or set so as to result in the charge of a rate or amount higher than would be paid if a standard type meter were used, except under such special rate schedule as may be filed under 19.2(3).

19.3(7) Meter reading interval. An effort shall be made to read meters on corresponding days of each meter-reading period. The utility may permit the customer to supply the meter readings on a form supplied by the utility. Unless the utility has a plan to test check readings, a utility representative will read the meter at least once each twelve months and when the utility is notified there is a change of customer.

19.3(8) Readings and estimates. When a customer is connected or disconnected or the regular meter reading date is substantially revised causing a given billing period to be longer or shorter than usual, such bills shall be prorated on a daily basis unless other provisions are made in the utility's filed rules.

The utility may leave a meter reading form with the customer when access to meters cannot be gained. If the form is not returned in time for the billing operation, an estimated bill may be rendered. If an actual meter reading cannot be obtained, the utility may render an estimated bill without reading the meter or supplying a meter-reading form to the customer. Only in unusual cases or when approval is obtained from the customer shall more than three consecutive estimated bills be rendered.

19.3(9) Temporary service. When the utility renders a temporary service to a customer it may require that the customer bear all the cost of installing and removing the service in excess of any salvage realized.

19.3(10) Extension plan. Each utility shall develop a plan, acceptable to the commission, for the installation of extensions of main and service lines where such facilities are in excess of those included in the regular rates for service and for which the customer shall be required to pay all or part of the cost. No utility shall make any extension except as permitted by their rules or refuse to make extension in accordance with these rules.

19.3(11) Co-operation and advance notice. In order that full benefit may be derived from these rules and in order to facilitate their proper application, all utilities shall observe the following co-operative practices:

a. Each utility shall give to other public utilities in the same general territory advance notice of any construction or change in construction or in operating conditions of its facilities concerned or likely to be concerned, in situations of proximity, provided, however, that the requirements of this rule shall not apply in case of routine extensions or minor changes in the local underground distribution facilities.

b. Each utility shall assist in promoting

conformity with these rules. An arrangement should be set up between all utilities whose facilities may occupy the same general territory, providing for the interchange of pertinent data and information including that relative to proposed and existing construction and changes in operating conditions concerned or likely to be concerned in situations of proximity.

19.4(490A) Customer relations.

19.4(1) *Customer information.* Each utility shall:

a. Maintain up-to-date maps, plans or records of its entire transmission and distribution systems, with such other information as may be necessary to enable the utility to advise prospective customers, and others entitled to the information, as to the facilities available for serving any locality.

b. Assist the customer or prospective customer in selecting the most economical rate schedule.

c. Notify customers affected by a change in rates or schedule classification as set out in Rules of Practice and Procedure before the commission.

d. Post a notice in a conspicuous place in each office of the utility where applications for service are received, informing the public that copies of the rate schedules and rules relating to the service of the utility, as filed with the commission, are available for inspection.

e. Upon request, inform its customers as to the method of reading meters.

f. Furnish such additional information as the customer may reasonably request.

g. Make certain that employees responsible for the receiving of customer telephone calls and customer office visits shall be properly qualified and instructed in the screening and prompt handling of complaints to assure prompt reference of the complaint to the person or department capable of effective handling of the matter complained of and to obviate the necessity of the customer's preliminary recitation of the entire complaint to employees lacking in ability and authority to take appropriate action.

19.4(2) *Customer deposits.* Each utility may require from any customer or prospective customer a deposit intended to guarantee payment of bills for service. Such deposit shall not be less than five dollars nor more in amount than the maximum estimated charge for service for two consecutive billing periods or ninety days, whichever is less, or as may reasonably be required by the utility in cases involving service for short periods or special occasions.

19.4(3) *Interest on deposit.* Simple interest on deposits accrued at the rate of at least five percent per annum shall be paid by the utility to each customer required to make such a deposit for the time held by the utility. Interest shall be paid from the date of deposit

to the date of refund or the date upon which the customer's account becomes delinquent, whichever is earlier, unless such period be less than six months. Payment of the interest to the customer may be made annually or at the time the deposit is returned. The deposit shall cease to draw interest on the date it is returned, on the date upon which the customer's account becomes delinquent, or on the date notice is sent to the customer's last known address that the deposit is no longer required.

19.4(4) Each utility shall keep records to show:

a. The name and address of each depositor.

b. The amount and date of the deposit.

c. Each transaction concerning the deposit.

19.4(5) Each utility shall issue a receipt of deposit to each customer from whom a deposit is received, and shall provide means whereby a depositor may establish his claim if his receipt is lost.

19.4(6) The deposit may be refunded upon request of the customer after twelve consecutive months of prompt payment, and, without such request, shall be refunded by the utility after thirty-six months of prompt payment unless the utility has evidence to indicate that the deposit is necessary to insure payment of bills for service. The deposit shall be refunded when the customer has paid the final billing upon termination of his service.

19.4(7) A record of each unclaimed deposit must be maintained for at least three years, during which time the utility shall make a reasonable effort to return the deposit. Unclaimed deposits, together with accrued interest, shall be credited to an appropriate account.

19.4(8) A new or additional deposit may be required upon reasonable written notice of the need for such a requirement in any case where a deposit has been refunded or is found to be inadequate to cover two months' bills as above provided for in 19.4(2) or where a customer's credit standing is not satisfactory to the utility. The service of any customer who fails to comply with these requirements may be disconnected upon five days written notice.

19.4(9) *Customer bill forms.* Each customer shall be informed as promptly as possible following the reading of his meter, on bill form or otherwise, the following:

a. The reading of the meter at the beginning and at the end of the period for which the bill is rendered.

b. The dates on which the meter was read at the beginning and end of the billing period.

c. The number and kind of units metered.

d. The applicable rate schedule or identification of the applicable rate schedule.

e. The gross and/or net amount of the bill. In the case of prepayment meters, the amount of money collected shall be shown.

f. The date by which the customer must pay the bill in order to benefit from any discount or to avoid any penalty.

g. A distinct marking to identify an estimated bill.

h. A distinct marking to identify a minimum bill.

19.4(10) Any conversions from meter reading units to billing units, or any calculations to determine billing units from recording or other devices, or any other factors, such as purchased gas or fuel adjustments, used in determining the bill. In lieu of this information on the bill, a statement must be on the bill advising that such information can be obtained by contacting the utility's local office.

19.4(11) Customer records. The utility shall retain customer billing records for the length of time necessary to permit the utility to comply with 19.4(12) but not less than three years.

19.4(12) Adjustment of bills. Bills which are incorrect due to meter or billing errors are to be adjusted as follows:

a. *Fast meters.* Whenever a meter in service is tested and found to have overregistered more than two percent, the utility shall recalculate the bills for service, for the period as determined below:

(1) The bills for service shall be recalculated from the time at which the error first developed or occurred if that time can be definitely determined.

(2) If the time at which the error first developed or occurred cannot be definitely determined, it shall be assumed that the overregistration existed for a period equal to one-half of the time since the meter was last tested, or July 4, 1963, whichever is later, and the bills for service shall be recalculated for that period.

(3) If the recalculated bills indicate that more than three dollars is due an existing customer or five dollars is due a person no longer a customer of the utility, the full amount of the calculated difference between the amount paid and the recalculated amount shall be refunded to the customer. The refund to an existing customer may be in lump sum cash or as lump sum credit on a bill. If a refund is due a person no longer a customer of the utility, a notice shall be mailed to the last known address, and the utility shall upon request made within three months thereafter refund the amount due.

b. *Nonregistering meters.* Whenever a meter in service is found not to register, the utility may render an estimated bill.

c. *Slow meters.* Whenever a meter is found to be more than two percent slow, the utility may bill the customer for the amount the test indicates he has been undercharged

for the period of inaccuracy, which period shall not exceed the last six months the meter was in service unless otherwise ordered by the commission. No back billing will be sanctioned if the customer has called to the utility's attention his doubts as to the meter's accuracy and the utility has failed within a reasonable time to check it.

19.4(13) Billing adjustments due to fast or slow meters shall be calculated on the basis that the meter should be one hundred percent accurate. For the purpose of billing adjustment the meter error shall be one-half of the algebraic sum of the error at full-rated flow plus the error at check flow.

a. When a customer has been overcharged as a result of incorrect reading of the meter, incorrect application of the rate schedule, incorrect connection of the meter, or other similar reasons, the amount of the overcharge shall be adjusted, refunded, or credited to the customer.

b. When a customer has been undercharged as a result of incorrect reading of the meter, incorrect application of the rate schedule, incorrect connection of the meter, or other similar reasons, the amount of the undercharge may be billed to the customer.

19.4(14) Credits and explanations. Credits due a customer because of meter inaccuracies, errors in billing, or misapplication of rates shall be separately identified.

19.4(15) Reasons for denying and disconnecting service. Service may be refused or discontinued for any of the reasons listed below. Unless otherwise stated, the customer shall be allowed a reasonable time in which to comply with the rule before service is discontinued. Service may be refused or discontinued:

a. Without notice in the event of a condition determined by the utility to be hazardous.

b. Without notice in the event of customer use of equipment in such a manner as to adversely affect the utility's equipment or the utility's service to others.

c. Without notice in the event of tampering with the equipment furnished and owned by the utility.

d. Without notice in the event of unauthorized use.

e. For violation of and/or noncompliance with the utility's rules on file with the commission.

f. For failure of the customer to fulfill his contractual obligations for service or facilities subject to regulation by the commission.

g. For failure of the customer to permit the utility reasonable access to its equipment.

h. For nonpayment of bill provided that the utility has made a reasonable attempt to effect collection and has given the customer written notice that he has at least five days, excluding Sundays and holidays, in which to

make settlement of his account or make a deposit in accordance with 19.4(2), or have his service disconnected.

i. For failure of the customer to provide the utility with a deposit as authorized by 19.4(2).

j. For failure of the customer to furnish such service equipment, permits, certificates, and/or rights of way necessary to serve said customer as shall have been specified by the utility as a condition to obtaining service, or in the event such equipment or permissions are withdrawn or terminated.

19.4(16) Insufficient reasons for denying service. The following shall not constitute sufficient cause for refusal of service to a present or prospective customer:

a. Delinquency in payment for service by a previous occupant of the premises to be served.

b. Failure to pay for merchandise purchased from the utility.

c. Failure to pay for a different type or class of public utility service.

d. Failure to pay the bill of another customer as guarantor thereof.

e. Failure to pay a back bill rendered in accordance with 19.4(12) "c", (Slow meters).

f. Failure to pay adjusted bills based on the undercharges set forth in 19.4(13) "b".

19.4(17) Change in character of service. The following procedure shall be followed whenever there is a material change in the character of the gas service:

a. Changes under the control of the utility. The utility shall make such changes only with the approval of the commission, and after adequate notice to the customers.

b. Changes not under the control of the utility. The utility shall maintain the proper combustibility of the gas supplied at the heating value and specific gravity existing at the customers' meters by adjustment of appliances, if necessary [see 19.7(6) "b"].

19.4(18) The utility shall make any necessary adjustments to the customers' appliances without charge and shall conduct the adjustment program with a minimum of inconvenience to the customers in a change in character of service under the control of the utility.

19.4(19) Customer complaints. Each utility shall investigate promptly and thoroughly and keep a record of written complaints and all other reasonable complaints received by it from its customers in regard to safety, service, or rates, and the operation of its system as will enable it to review and analyze its procedures and actions. The record shall show the name and address of the complainant, the date and nature of the complaint, and its disposition and the date thereof. All complaints caused by a major outage or interruption shall be summarized in a single report.

19.5(490A) Engineering practice.

19.5(1) Requirement for good engineering practice. The gas plant of the utility shall be constructed, installed, maintained and operated in accordance with accepted good engineering practice in the gas industry to assure, as far as reasonably possible, continuity of service, uniformity in the quality of service furnished, and the safety of persons and property.

19.5(2) Acceptable standards. Unless otherwise specified by the commission, the utility shall use the applicable provision in the publications listed below as standards of accepted good practice:

a. The letters "ASA" used in these rules mean "American Standards Association", American Standard Code for "Gas Transmission and Distribution Piping Systems", ASA B31.8-1963.

b. The American Standard Installation of Gas Appliances and Gas Piping, ASA Z21.30 - 1964.

c. The National Fire Protection Association Standard, No. 59, June, 1962, "The Storage and Handling of Liquefied Petroleum Gases at Utility Gas Plants".

d. "Standard Methods of Gas Testing", Circular No. 48, National Bureau of Standards, 1916. (The applicable portions of this circular have been substantially reproduced in the American Meter Company Handbook E-4, covering the testing of positive displacement gas meters).

e. "Testing Large Capacity Rotary Gas Meters", Research Paper No. 1741, National Bureau of Standards Journal of Research, September, 1946.

f. "Standard Method of Test for Calorific Value of Gaseous Fuels by the Water-Flow Calorimeter", American Society for Testing Materials, Standard D 900-55, adopted, 1948; Revised, 1955.

19.5(3) Acceptable references. The following publications have not been designated as standards but they may be used as guides for acceptable practice:

a. "Accuracy of the Recording Gas Calorimeter When Used with Gases of High BTU Content", by John H. Eiseman, National Bureau of Standards, and Elwin A. Patter, Gas Inspection Bureau of the District of Columbia, AGA publication No. CEP-55-13.

b. "Orifice Metering of Natural Gas", Report No. 3 of the AGA Gas Measurement Committee — April, 1955, as reprinted with revisions in January, 1956.

c. Reports prepared by the Practical Methods Committee of the Appalachian Gas Measurement Short Course, West Virginia University, as follows:

(1) Report No. 1, "Methods of Testing Large Capacity Displacement Meters" — 1960.

(2) Report No. 2, "Testing Orifice Meters" — 1940 as revised, 1958.

(3) Report No. 3, "Designing and Installing Measuring and Regulating Stations" as revised, 1956.

(4) Report No. 4, "Useful Tables for Gas Men" — 1950.

(5) Report No. 5, "Prover Room Practices" — 1954.

19.5(4) Adequacy of gas supply. The gas supply regularly available from pipe-line sources supplemented by production or storage capacity must be sufficiently large to meet all reasonable demands for firm gas service.

19.6(490A) Inspections and meter tests.

19.6(1) Inspection of gas plant. The utility's gas transmission and distribution facilities shall be designed, constructed and maintained as required to perform the gas delivery burden placed upon them. Each utility shall be capable of emergency repair work on a scale consistent with its scope of operation and with the physical conditions of its transmission and distribution facilities.

In appraising the reliability of the utility's transmission and distribution system, the commission will consider the condition of the physical property and the size, training, supervision, availability, equipment and mobility of the maintenance forces all as principal factors.

Each utility must adopt a program of inspection of its gas plant in order to determine the necessity for replacement and repair. The frequency of the various inspections shall be based on the utility's experience and accepted good practice. Each utility shall keep sufficient records to give evidence of compliance with its inspection program.

19.6(2) Referee tests. Upon written application to the commission by a customer or a utility, a test will be made of the customer's meter as soon as practicable under the observation of a representative of the commission.

The application, when in the case of a customer, shall be transmitted by certified or registered mail, accompanied by a certified check or money order made payable to the utility in the amount of ten dollars.

On receipt of such request from a customer the commission will forward the deposit to the utility and will notify the utility of the requirement for the test and the utility shall not knowingly remove or adjust the meter until instructed by the commission. The utility shall furnish all instruments, load devices and other devices and other facilities necessary for the test and shall perform the test in the presence and under the observation of the commission's representative and shall furnish verification of the accuracy of test instruments used.

If upon test the meter is found to over-register to an extent requiring a refund under the provisions of 19.4(12) "a", the amount paid to the utility for the test shall be returned to the customer by the utility.

The utility shall notify the customer in advance of the date and time of the referee test so the customer or his representative may be present when his meter is tested. The commission will make a written report of the results of the test to the customer and to the utility.

19.6(3) Leak tests. Repaired meters, and meters that have been removed from service, shall be leak tested by the utility prior to installation. New meters shall be leak tested in accordance with a sampling method acceptable to the commission. Each meter tested shall be subjected to an internal pressure of at least 20" W.C. and checked for the presence of leaks by one of the following tests:

a. Immersion test.

b. Soap test.

c. Pressure drop test of a type acceptable to the commission.

19.6(4) Request tests. Upon request by a customer the utility shall make a test of the meter serving him, provided that such tests need not be made more frequently than once in eighteen months. If the meter is found accurate under the provisions of 19.4(12) the utility may charge the consumer not to exceed five dollars or the actual cost of such test, whichever is lesser. If a customer demands a meter test with less than eighteen months between tests and the utility is not willing to perform the meter test at no charge, the customer must make a request for a referee test as set out in 19.6(2).

The utility shall notify the customer in advance of the date and time of the requested test so the customer or his representative may be present when his meter is tested.

A report of the results of the test shall be made to the customer within a reasonable time after the completion of the test, and a record of the report, together with a complete record of each test, shall be kept on file at the office of the utility.

19.6(5) Periodic tests. Unless otherwise authorized by the commission each utility shall make periodic tests of meters, associated metering devices and instruments, to assure their accuracy. Such tests shall be scheduled within the calendar year or earlier, when the interval is stated in years; or within the calendar month or earlier, when the interval is stated in months. The basic periodic test interval shall not be longer than provided for in the following schedule: (Note: Maintenance and test programs suggested by manufacturers of the following meters and devices should be carefully considered.)

a. Positive displacement meters 0 to 800 c.f./hr.

with ½ inch water column drop — 10 yrs.
801 to 2400 c.f./hr.

with ⅓ inch water column drop — 7 yrs.
Over 2400 c.f./hr.

with ½ inch water column drop — 2 yrs.

b. Orifice meters 6 months

c. Base pressure correcting devices

shall be checked on same time interval as the meters they are on.

d. Base volume correcting devices shall be checked on same time interval as the meters they are on.

e. *Secondary standards.*

Test bottles, one cubic foot 10 years
 Dead weight testers 10 years

f. *Working standards.*

Bell provers 5 years
 Rotary displacement test meters .. 5 years

(Each utility having rotary displacement meters which are too large for testing on a five cubic foot bell prover may use a properly calibrated transfer prover, low pressure flow prover, critical flow prover, or differential tests. In the latter case, an original differential test record shall be set up immediately after installation; further differential test results shall be recorded and compared with original test records.)

Flow provers 5 years
 Laboratory quality indicating pressure gauges 6 months

19.6(6) Preinstallation inspections and tests. Except where an acceptable statistical sampling program has been approved by the commission, every meter and/or associated device shall be inspected and tested before being placed in service. A meter manufacturer's certification approved by the commission and supplemented by an acceptable statistical sampling program shall suffice for this purpose. The accuracy of each meter shall be certified to be within the following tolerances:

- a. For positive displacement meters 1.5% plus or minus
- b. For orifice meters 2.0% plus or minus

19.6(7) As found tests. All meters and/or associated metering devices shall be tested by the utility after they are removed from service. Such tests shall be made before the meters and/or associated devices are adjusted, repaired or retired.

19.6(8) Test procedures and accuracies. Meters and/or associated metering devices shall be tested at the points and adjusted to the tolerances prescribed below. The test of any unit of metering equipment shall consist of a comparison of its accuracy with the accuracy of a standard. The commission will use the applicable provisions of the standards listed in 19.5(2) as criteria of accepted good practice in testing meters.

a. *Positive displacement meters.*

(1) *Accuracy at test points.*

	ADJUSTED TO WITHIN
FLOW	
Check flow	1.5%
Not less than full rated flow	1.5%

(2) *Overall accuracy.* The accuracy at check flow and the accuracy at not less than full rated flow shall agree within one percent.

b. *Orifice meters.* Accuracy at test points must be within two percent, plus or minus.

c. *Timing devices.* All recording type meters or associated instruments which have a timing element that serves to record the time at which the measurement occurs must be adjusted so that the timing element is not in error by more than plus or minus four minutes in any twenty-four-hour period.

19.6(9) General. All meters and/or associated metering devices, when tested, shall be adjusted as closely as practicable to the condition of zero error. All tolerances are to be interpreted as maximum permissible variations from the condition of zero error. In making adjustments no advantage of the prescribed tolerance limits shall be taken.

19.6(10) Facilities and equipment for meter testing. Each utility shall maintain or designate a meter shop for the purpose of inspecting, testing and repairing meters. The shop shall be open for inspection by authorized representatives of the commission at all reasonable times, and the facilities and equipment, as well as the methods of measurements and testing employed, shall be subject to the approval of the commission.

The area within the meter shop used for testing of meters shall be designed so that the meters and meter testing equipment are protected from drafts and excessive changes of temperature.

The meters to be tested shall be stored in such manner that the temperature of the meters is substantially the same as the temperature of the prover.

19.6(11) Working standards. Each utility shall own and maintain, or have access to, at least one approved bell type prover of not less than five cubic foot capacity, and all other equipment necessary to test meters, which shall be installed in the meter room. Means shall be provided to maintain the temperature of the liquid in the meter prover at substantially the same level as the ambient temperature in the prover room. The meter prover shall be maintained in good condition and correct adjustment so that it shall be capable of determining the accuracy of any service meter to within one-half of one percent.

Each utility having meters which are too large for testing on a five cubic foot bell prover may use a properly calibrated test meter or a properly designed flow prover for testing the large meters.

19.6(12) Working standards must be checked periodically [see 19.6(5)] by comparison with a secondary standard.

Bell provers or piston type provers must be checked with a one cubic foot bottle which has been calibrated by the National Bureau of Standards.

Rotary displacement test meters must be checked with a bell prover or piston type prover of adequate capacity which has been

calibrated by representatives of the National Bureau of Standards.

19.6(13) Extreme care must be exercised in the use and handling of standards to assure that their accuracy is not disturbed. Each standard shall be accompanied at all times by a certificate or calibration card, duly signed and dated, on which are recorded the corrections required to compensate for errors found at the customary test points at the time of the last previous test.

19.6(14) Each utility must have properly calibrated orifices, as may be necessary, to achieve the rates of flow required to test the meters on its system.

19.6(15) Records of meters and associated metering devices. Each utility shall maintain records of the following data, where applicable, for each meter and/or associated metering device until three years after retirement:

a. The complete identification — manufacturer, number, type, capacity, multiplier, constants, and pressure rating.

b. The dates of installation and removal from service, together with the location.

19.6(16) Meter test records. Each utility shall maintain records of at least the last two tests made of any meter. The record of the meter test made at the time of the meter's retirement shall be maintained for a minimum of three years. Test records shall include the following:

a. The date and reason for the test.

b. The reading of the meter before making any test.

c. The accuracy "as found" at check and full rated flow.

d. The accuracy "as left" at check and full rated flow.

e. In the event test of the meter is made by using a standard meter or a flow prover, the utility shall retain all data taken at the time of the test in sufficiently complete form to permit the convenient checking of the test methods and the calculations.

f. Statement of repairs made if any.

19.7(490A) Standards of quality of service.

19.7(1) Purity requirements. All gas supplied to customers shall be substantially free of impurities which may cause corrosion of mains or piping or from corrosive or harmful fumes when burned in a properly designed and adjusted burner.

19.7(2) Pressure limits. The maximum allowable operating pressure for a low pressure distribution system shall not be so high as to cause the unsafe operation of any connected and properly adjusted low pressure gas burning equipment.

19.7(3) Pressure surveys and records. Each utility shall make a sufficient number of pressure measurements on its mains and at the customer's meter so that it will have

a substantially accurate knowledge of the pressures in the low, intermediate and high pressure systems in each district, division, or community served by its distribution mains. All pressure records obtained under this section shall be retained by the utility for at least two years and shall be available for inspection by the commission's representatives. Notations on each record shall indicate the following:

a. The location where the pressure check was made.

b. The time and date of the check.

19.7(4) Standards for pressure measurements.

a. *Secondary standards.* Each utility shall own or have access to a dead weight tester. This instrument must be maintained in an accurate condition.

b. *Working standards.* Each utility must have water manometers, mercury manometers, laboratory quality indicating pressure gauges and field type dead weight pressure gauges as necessary for the proper testing of the indicating and recording pressure gauges used in determining the pressure on the utility's system. Working standards must be checked periodically [see 19.6(5)] by comparison with a secondary standard.

19.7(5) Extreme care must be exercised in the handling of standards to assure that their accuracy is not disturbed. Each standard shall be accompanied at all times by a certificate or calibration card, duly signed and dated, on which are recorded the corrections required to compensate for errors found at the customary test points at the time of the last previous test.

19.7(6) Heating value.

a. *Manufactured and mixed gas.* The heating value of manufactured gas, including LP-gas mixed with air, and natural gas when mixed with manufactured or LP-gas for peak shaving or emergency purposes shall be considered a mixed gas and shall be considered as being under the control of the utility. The average heating value on any one day shall not fall below the standard total heating value [see 19.2(5) "c" (1)] by more than five percent but such average heating value may exceed the standard total heating value provided the resulting mixed gas shall have a specific gravity of less than 1.000. The monthly average heating value shall be not less than the standard total heating value.

b. *Natural and LP-gas.* The heating value of natural gas and undiluted, commercially pure LP-gas shall be considered as being not under the control of the utility. The utility shall determine the allowable range of monthly average heating values within which its customers' appliances may be expected to function properly without repeated readjustment of the burners. If the monthly average heating value is above or below the limits of

the allowable range for three successive months, the customers' appliances must be readjusted in accordance with 19.4(17).

19.7(7) Heating value determination and records. Unless acceptable heating value information is available for all periods from other sources, including the pipe-line supplier, the utility shall provide and maintain a calorimeter of a type acceptable to the commission for the regular determination of the heating value of the gas sold. All companies using peak shaving equipment for auxiliary gas supply must determine heating value of mixed gas after the introduction of the peak shaving gas supply. The calorimetric equipment shall be installed in a suitably located testing station acceptable to the commission and subject to its inspection. The accuracy of all calorimeters, as well as the method of making heating value tests, shall be acceptable to the commission. Recording calorimeters shall be tested with a standard gas at least once each three years.

19.7(8) The utility shall determine the heating value of manufactured and mixed gas at least twice each day and shall make the tests during the period of the morning and afternoon peak demands.

19.7(9) The utility shall determine the heating value of natural and LP-gas at least once each month, except that utilities selling gas subject to a thermal adjustment shall determine the heating value in accordance with 19.7(8) above.

19.7(10) Interruptions of service. Each utility shall make reasonable efforts to avoid interruptions of service but when interruptions occur, service shall be re-established within the shortest time practicable, consistent with safety. Each utility shall keep records of interruptions of service on a major portion of its distribution system as set out in 19.1(3) "m" and shall make an analysis of the records for the purpose of determining steps to be taken to prevent recurrence of such interruptions. Such records should include the following information concerning the interruptions:

- a. Cause
- b. Date and time
- c. Duration

19.7(11) Planned interruptions shall be made at a time that will not cause unreasonable inconvenience to customers and shall be preceded by adequate notice to those who will be affected.

19.7(12) Each utility shall promptly notify the gas section of the commission by telephone or telegraph of any interruption to the service of a major portion of its distribution system.

19.8(490A) Safety.

19.8(1) Acceptable standards. As criteria of accepted good safety practice the com-

mission will use the applicable provisions of the standard listed in 19.5(2).

19.8(2) Protective measures. Each utility shall exercise reasonable care to reduce hazards inherent in connection with utility service to which its employees, its customers, and the general public may be subjected and shall adopt and execute a safety program designed to protect the public, fitted to the size and type of its operations. The utility shall give reasonable assistance to the commission in the investigation of the cause of accidents and in the determination of suitable means of preventing accidents. Each utility shall maintain a summary of all reportable accidents arising from its operations.

19.8(3) Turning on gas. Each utility upon the installation of a meter and turning on gas or the act of turning on the gas alone shall take the necessary steps to assure itself that there exists no flow of gas through the meter which is a warning that the customer's piping or appliances are not safe for gas turn on. (Ref: Sec. 2.11 ASA Z21.30, 1950 Turning on Gas.)

19.8(4) Gas leaks. A report of a gas leak shall be considered as an emergency requiring immediate attention.

19.8(5) Odorization. Any gas distributed to customers through gas mains or gas services or used for domestic purposes in compressor plants, which does not naturally possess a distinctive odor to the extent that its presence in the atmosphere is readily detectable at all gas concentrations of one-fifth of the lower explosive limit and above, shall have an odorant added to it to make it so detectable. Odorization is not necessary, however, for such gas as is delivered for further processing or use where the odorant would serve no useful purpose as a warning agent. Suitable tests must be made to determine whether the odor meets the aforementioned standards.

[Filed July 12, 1966]

CHAPTER 20

SERVICE SUPPLIED BY ELECTRIC UTILITIES

20.1(490A) General information.

20.1(1) Authorization of rules. Chapter 490A of the Code provides that the Iowa state commerce commission shall establish all needful, just and reasonable rules, not inconsistent with law, to govern the exercise of its powers and duties, the practice and procedure before it, and to govern the form, content and filing of reports, documents and other papers necessary to carry out the provisions of this law.

Chapter 489 of the Code, provides that the Iowa state commerce commission shall have power to make and enforce rules relating to the location, construction, operation and maintenance of certain electrical transmission lines.

20.1(2) Application of rules. The rules shall apply to any electric utility operating within the state of Iowa subject to chapter 490A of the Code, and to the construction, operation and maintenance of electric transmission lines to the extent provided in chapter 489 of the Code, and shall supersede all conflicting rules of any such electric utility which were in force and effect prior to the adoption of their superseding rules.

These rules are intended to promote safe and adequate service to the public, to provide standards for uniform and reasonable practices by utilities, and to establish a basis for determining the reasonableness of such demands as may be made by the public upon the utilities.

If unreasonable hardship to a utility or to a customer results from the application of any rule herein prescribed, application may be made to the commission for the modification of the rule or for temporary or permanent exemption from its requirements.

The adoption of these rules shall in no way preclude the commission from altering or amending them, pursuant to statute, or from making such modifications with respect to their application as may be found necessary to meet exceptional conditions.

These rules shall in no way relieve any utility from any of its duties under the laws of this state.

20.1(3) Definitions. The following words and terms when used in these rules, shall have the meaning indicated below:

a. "Commission" means the Iowa state commerce commission, sometimes hereafter referred to as "ISCC".

b. "Utility" means any person, partnership, business association, or corporation, domestic or foreign, owning or operating any facilities for furnishing electricity to the public for compensation.

c. "Rate-regulated utility" means any utility as defined in definition 20.1(3) "b" above which is subject to rate regulation provided for in chapter 490A of the Code.

d. "Customer" means any person, firm, association, or corporation, or any agency of the federal, state or local government, being supplied, subject to the jurisdiction of this commission with light, heat or power by an electric utility.

e. "Premises" means a piece of land or real estate, including buildings and other appurtenances or improvements thereon.

f. "Electric plant" includes all real estate, fixtures and property owned, controlled, operated or managed in connection with or to facilitate the production, generation, transmission, delivery or furnishing of light, heat or power by an electric utility.

g. "Meter" means, unless otherwise qualified, a device that measures and registers the integral of an electrical quantity with respect to time.

h. "Meter shop" is a shop where meters are inspected, repaired and tested, and may be at a fixed location or may be mobile.

i. "Tariff" The entire body of rates, tolls, rentals, charges, classifications and rules, adopted and filed by an electric utility for heat, light or power service furnished by the electric utility.

j. "Transmission line." Any single or multiphase electric power line operating at nominal voltages in excess of either 26,000 volts between ungrounded conductors or 15,000 volts between grounded and ungrounded conductors, regardless of the functional service provided by the line.

k. "Distribution line" Any single or multiphase electric power line operating at nominal voltage in either of the following ranges: 2,000 to 26,000 volts between ungrounded conductors or 1,155 to 15,000 volts between grounded and ungrounded conductors, regardless of the functional service provided by the line.

l. "Secondary line" Any single or multiphase electric power line operating at nominal voltage less than either 2,000 volts between ungrounded conductors or 1,155 volts between grounded and ungrounded conductors, regardless of the functional service provided by the line.

m. "Complaint" as used in these rules is a statement or question by anyone, whether a utility customer or not, alleging a wrong, grievance, injury, dissatisfaction, illegal action or procedure, dangerous condition or action or utility obligation.

20.1(4) Abbreviations. The following abbreviations may be used where appropriate:

a. ASA — American Standards Association, Incorporated, 10 East 40th Street, New York 16, New York.

b. FCC — Federal Communications Commission, Washington, D. C. 20554.

c. FPC — Federal Power Commission, Washington, D. C. 20426.

d. NARUC — National Association of Railroad and Utilities Commissioners, Interstate Commerce Commission Building, P. O. Box 684, Washington, D. C. 20044.

e. NFPA — National Fire Protection Association, 60 Batterymarch Street, Boston 10, Massachusetts.

20.2(490A) Records and reports.

20.2(1) Location of records. All records required by these rules or necessary for the administration thereof, shall be kept within this state unless otherwise authorized by the commission. These records shall be available for examination by the commission or its authorized representatives at all reasonable hours.

20.2(2) Retention of records. Unless otherwise specified herein, all records required by these rules shall be preserved for the period of time specified in the National Association of

Railroad and Utilities Commissioners' publication, "Regulations to Govern the Preservation of Records of Electric, Gas and Water Utilities—Revised 1963".

20.2(3) Tariffs to be filed with the commission. The utility shall file its tariff with the commission, and shall maintain such tariff filing in a current status.

The schedules of rates of rate-regulated utilities and rules of all utilities shall be filed with the commission and shall be classified, designated, arranged and submitted so as to conform to the requirements of current tariff or rate schedule circulars and special instructions which have been or may from time to time be issued by the commission. Provisions of the schedules shall be definite and so stated as to minimize ambiguity or the possibility of misinterpretation. The form, identification and content of tariffs shall be in accordance with these rules.

Utilities which are not subject to the rate regulation provided for by chapter 490A of the Code, shall not be required to file schedules of rates, or contracts primarily concerned with a rate schedule, with the commission and shall not be subject to the provisions related to rate regulations, but nothing contained in these rules shall be deemed to relieve any utility of the requirement of furnishing any of these same schedules or contracts which are needed by the commission in the performance of the commission's duties upon request to do so by the commission.

20.2(4) Form and identification. All tariffs shall conform to the following rules:

a. The tariff shall be printed, typewritten or otherwise reproduced on 8½ x 11 inch sheets of white paper equal in durability to twenty-pound bond paper with 25 percent cotton or rag content so as to result in a clear and permanent record. The sheets of the tariff should be ruled or spaced to set off a border on the left side suitable for binding. In the case of utilities subject to regulation by any federal agency the format of sheets of tariff as filed with the commission may be the same format as is required by the federal agency provided that the rules of the commission as to title page; identity of superseding, replacing or revision sheets; identity of amending sheets; identity of the filing utility, issuing official, date of issue, effective date; and the words "ISCC TARIFF" shall apply in the modification of the federal agency format for the purposes of filing with this commission.

b. The title page of every tariff and supplement shall show in the order named:

(1) The first page shall be the title page which shall show:

ISCC ELECTRIC TARIFF
(Name of Public Utility)
filed with

Iowa State Commerce Commission.....

Date

(2) When a tariff is to be superseded or replaced in its entirety, the replacing tariff

shall show on its title page that it supersedes a tariff on file and the number being superseded or replaced, for example:

ISCC TARIFF NO. _____
SUPERSEDES ISCC TARIFF NO. _____

(3) When a partial tariff amends or adds to an original or amended tariff already on file, the partial tariff shall show on each amending page the designation of the original tariff and the number of any preceding amendment thus amended, for example:

AMENDS ISCC TARIFF NO. _____
(Name of Public Utility)

EFFECTIVE _____

(4) When a new part of a tariff eliminates an existing part of a tariff it shall so state and clearly indicate the part eliminated.

(5) Any tariff modifications as defined above shall be marked in the right-hand margin of the replacing tariff sheet with symbols as here described to indicate the place, nature and extent of the change in text.

—Symbols—

(C)—Changed regulation

(D)—Discontinued rate or regulation

(I)—Increase in rate or new treatment resulting in increased rate

(N)—New rate, treatment or regulation

(R)—Reduction in rate or new treatment resulting in reduced rate

(T)—Change in text only

c. All sheets except the title page shall have, in addition to the above-stated requirements the following further information:

(1) Name of utility under which shall be set forth the words "ISCC TARIFF". If the utility is not a corporation, and a trade name is used, the name of the individual or partners must precede the trade name.

(2) Issuing official, title and issue date.

(3) Effective date.

20.2(5) Content of tariffs.

a. A table of contents containing a list of rate schedules and other sections in the order in which they appear showing the sheet numbers of the first page of each rate schedule or other section. In the event the utility filing the tariff elects to segregate a section such as general rules and regulations from the section containing the rate schedules or other sections, it may at its option prepare a separate table of contents for each such segregated section.

b. A preliminary statement containing a brief general explanation of the utility's operations.

c. All rates for service with indication for each rate of the type and voltage of service and the class of customers to which each rate applies. There shall also be shown any limitations on loads and type of equipment which may be connected, the prices per unit of service, and the number of units per billing period to which the prices apply, the period of billing,

the minimum bill, any effect of transformer capacity upon minimum bill or upon the number of KWH in any step of the rate, method of measuring demands, method of calculating or estimating loads in cases where transformer capacity has a bearing upon minimum bill or size of rate steps, and any special terms and conditions applicable. The discount for prompt payment or penalty for late payment, if any, and the period during which the net amount may be paid shall be specified.

d. The voltage and type of service, (direct current or single or polyphase alternating current) supplied in each municipality, but without reference required to any particular part thereof.

e. Forms of standard contracts required of customers for the various types of service available.

f. If service to other utilities or municipalities is furnished at a standard filed rate, either a copy of each signed contract or a copy of the standard uniform contract form together with a summary of the provisions of each signed contract. The summary shall show the principal provisions of the contract and shall include the name and address of the customer, the points where energy is delivered, rate, term, minimum, load conditions, voltage of delivery, and any special provisions such as rentals. Standard contracts for such sales as that of energy for resale, street lighting, municipal athletic field lighting, and for water utilities may be filed in summary form as above outlined.

g. Copies of special contracts for the purchase, sale, or interchange of electrical energy.

h. List of towns, cities, and unincorporated communities where urban rates are applicable, and a list of all communities in which service is furnished at other rates.

i. The list of service areas and the rates shall be filed in such form as to facilitate ready determination of the rates available in each municipality and in such unincorporated communities as have service at urban rates. If the utility has various rural rates, the areas where the same are available shall be indicated.

j. Definitions of classes of customers.

k. Extension rules for extending service to new customers indicating what portion of the extension or cost thereof will be furnished by the utility; and if the rule is based on cost, the items of cost included.

l. Type of construction which the utility requires the customer to provide if in excess of the Iowa electric safety code or the requirements of the municipality having jurisdiction, whichever may be the most stringent in any particular.

m. Specification of such portion of service as the utility furnishes, owns, and maintains, such as service drop, service entrance cable or conductors, conduits, service entrance equipment, meter, and socket. In-

dication of the portions of interior wiring such as range or water heater connection, furnished in whole or in part by the utility, and statement indicating final ownership and responsibility for maintaining equipment furnished by utility.

n. Statement of the type of special construction commonly requested by customers which the utility allows to be connected, and terms upon which such construction will be permitted, with due provision for the avoidance of unjust discrimination as between customers who request special construction and those who do not. This applies, for example, to a case where a customer desires underground service in overhead territory.

o. Rules with which prospective customers must comply as a condition of receiving service, and the terms of contracts required.

p. Rules governing the establishment of credit by customers for payment of service bills.

q. Rules governing the procedure followed in disconnecting and reconnecting service.

r. Notice by customer required for having service discontinued.

s. Rules covering temporary, emergency, auxiliary, and stand-by service.

t. Rules covering the type of equipment which may or may not be connected, including rules such as those requiring demand-limiting devices or power-factor corrective equipment.

u. General statement of the method used in making adjustments for wastage of electricity when accidental grounds exist without the knowledge of the customer.

v. A statement indicating the minimum number of days allowed for payment of the gross amount of the customer's bill before service will be discontinued for nonpayment.

w. Each utility shall develop a plan, acceptable to the commission, for the extensions of facilities, where they are in excess of those included in the regular rates for service and for which the customer shall be required to pay all or part of the cost as provided in 20.3(8) of these rules. The complete text of this accepted plan shall be included in the tariff as filed with the commission.

x. The name, title, address and telephone number of the person authorized to receive, act upon and respond to communications from the commission in connection with:

- (1) General management duties.
- (2) Customer relations (complaints).
- (3) Engineering operations.
- (4) Meter tests and repairs.
- (5) Emergencies during nonoffice hours.

(6) Franchises for electric lines.

20.2(6) Annual, periodic and other reports to be filed with the commission.

a. *System map verification.* The utility shall file annually a verification that it has

a currently correct set of utility system maps in accordance with general requirement 20.3(10) and a statement as to the location of the utility's offices where such maps are accessible and available for examination by the commission or its agents. The verification and map location information shall also be reported to the commission upon other occasions when significant changes occur in either the maps or location of the maps.

b. Accident reports. Any person, company, corporation, city or town operating electric supply lines shall report in writing to the commission, all accidents to employees or other persons resulting in fatalities or second and/or third degree burns involving several areas or an extensive area of the body surface caused by contact with energized parts of an electric supply line, and fatal accidents and/or fractures, dislocations or internal injuries resulting from a fall or from other causes and accidents resulting in property loss in excess of \$10,000; such written report shall indicate the following information:

(1) The name, address and age of the person or persons involved in the accident.

(2) The time and place where the accident occurred.

(3) Description of injuries including extent, severity and location on injured person(s).

(4) The cause of the accident in detail.

(5) The name of the individual, company, corporation, city or town operating the electric supply line.

c. Notice of accident. Prompt notice, by telephone or telegraph shall be given to the electrical engineering section of the commission during office hours by the utility of any electrical utility accident as hereinbefore defined which has resulted in a human fatality.

Prompt notice, by telephone or telegraph shall be given to the electrical engineering section of the commission during office hours by the utility in the event of an interruption of electric service, other than scheduled interruptions, for one hour or longer period of time to an important portion of the utility's electrical service customers.

d. Each utility shall compile a monthly record of electric service showing the production, acquisition and disposition of electric energy, the number of customer terminal voltage investigations made, the number of customer meters tested and such other information as may be required by the commission. The monthly "Electric Service" record shall be compiled not later than thirty days after the end of the month covered and such record shall, upon and after compilation, be kept available for inspection by the commission or its staff at the utility's principal office within the state of Iowa. A summary of the twelve monthly "Electric Service" records for each calendar year shall be attached to and submitted with the utility's annual report to the commission.

e. The utility shall keep the commission informed currently by written notice as to the location at which the utility keeps the various classes of records required by these rules.

f. A copy of the utility's current rules, if any, published or furnished by the utility for the use of engineers, architects, electrical contractors, etc., covering meter and service installations shall be filed with the commission.

g. A copy of each type of customer bill form in current use shall be filed with the commission.

20.3(490A) General service requirements.

20.3(1) Disposition of electricity. All electricity sold by a utility shall be on the basis of meter measurement except for temporary service installations where the load is constant and the consumption may be readily computed, or as provided for in its filed rates.

Wherever practicable, consumption of electricity within the utility itself, or by administrative units associated with it, shall be metered.

No part of the electric service supplied to a customer's premises (except those premises at which submetering or resale of service was permitted prior to the first effective date of these rules) shall be resold to any third party except as an undefined part of a fixed rental without the specific written consent and agreement of the utility serving the premises and any utility operating under such an agreement or entering into such an agreement shall file a copy of each such agreement as a part of its tariff filing with the commission.

20.3(2) Condition of meter. No meter shall be installed or continued in service which is known to be mechanically or electrically defective, or to have incorrect constants or which has not been tested, and adjusted if necessary, in accordance with rules herein. The capacity of the meter and the index mechanism should be consistent with the electric requirements of the customer.

20.3(3) Meter reading records. The meter reading records shall show:

a. Customer's name, address, and rate schedule or identification of rate schedule.

b. Identification of the meter or meters either by permanently marked utility number or by manufacturer's name, type number and serial number.

c. Meter readings.

d. If the reading has been estimated.

e. Any applicable multiplier or constant.

20.3(4) Meter charts. All charts taken from recording meters shall be marked with the initial and final date and hour of the record, the meter identification, customer's name and location and the chart multiplier.

20.3(5) Meter multiplier. If it is necessary to apply a multiplier to the meter readings, the multiplier must be marked on the

face of the meter register or stenciled in weather resistant paint upon the front cover of the meter in the following manner, X 100, or X 20.

20.3(6) Meter reading and billing periods. Readings of all meters used for determining charges to customers shall be scheduled monthly, bimonthly, quarterly or semiannually. An effort shall be made to obtain readings of the meters on corresponding days of each meter reading period. Bills shall be prorated on a daily basis:

a. Whenever, as a result of the connection or disconnection of the customer's service or a change of meter reading dates to serve the utility's convenience, the duration of the meter reading period for any customer is less than eighty percent of the normal meter reading period and,

b. Whenever, due to any cause, the duration of the meter reading period for any large commercial, large industrial or wholesale customer is less than eighty percent of the normal meter reading period.

The utility may permit the customer to supply the meter readings on a form supplied by the utility. Unless the utility has a plan to test check meter readings a utility representative will read the meter at least once each twelve months. At the request of the customer the utility will read the meter upon the beginning or termination of service.

In the event that the utility leaves a meter reading form with the customer when access to meters cannot be gained and the form is not returned in time for the billing operation, an estimated bill may be rendered.

If an actual meter reading cannot be obtained, the utility may render an estimated bill without reading the meter or supplying a meter reading form to the customer. Only in unusual cases or when approval is obtained from the customer shall more than three consecutive estimated bills be rendered.

20.3(7) Demand meter registration. When a demand meter is used for billing, the meter installation should be designed so that the highest expected annual demand reading to be used for billing will appear in the upper half of the meter's range.

20.3(8) Extension plan. Each utility shall develop a plan, acceptable to the commission, for the installation of extensions of main and service lines where such facilities are in excess of those included in the regular rates for service and for which the customer shall be required to pay all or part of the cost. No utility shall make or refuse to make any extensions except as permitted by these rules.

20.3(9) Co-operation and advance notice. In order that full benefit may be derived from these rules and in order to facilitate their proper application, all utilities between whose facilities co-ordination may now or later be necessary, shall observe the following co-operative practices:

a. Each utility shall give to other utilities in the same general territory advance notice of any construction or change in construction or in operating conditions of its facilities involved or likely to be involved, in situations of proximity, provided, however, that the requirements of this rule shall not apply in case of routine extensions or minor changes in the local distribution facilities.

b. To assist in promoting conformity with these rules, an arrangement shall be established between all utilities, whose facilities may occupy the same general territory, providing for the interchange of pertinent data and information including that relative to proposed and existing construction and changes in operating conditions involved or likely to be involved in situations of proximity.

20.3(10) Maps. Each utility shall maintain a currently corrected map or set of maps showing the physical location of its electric lines and stations in the area in which it supplies electric power and of the electric transmission facilities interconnecting such areas and all such maps shall be continuously accessible and available for examination by the commission or its agents at the utility's designated offices during the utility's regular office hours. The utility shall maintain maps or records showing:

a. Generating stations with capacity designation.

b. Purchased power supply points with maximum contracted capacity designation.

c. Purchased power metering points if located at other than power delivery point.

d. Transmission lines with size and type of conductor designation and operating voltage designation.

e. Transmission-to-transmission voltage transformation substations with transformer voltage and capacity designation.

f. Transmission-to-distribution voltage transformation substations with transformer voltage and capacity designation.

g. Distribution lines with size and type of conductor designation, phase designation and voltage designation.

h. Post-office names of all municipalities where retail electric service is supplied.

i. Post-office names of all municipalities to which the utility furnishes wholesale-for-retail electric power service.

j. All points at which transmission, distribution or secondary lines of the utility cross Iowa state boundaries.

k. The maps shall otherwise conform to any mapping standards presently adhered to by the reporting utility.

20.3(11) The requirement as to accessibility and availability to the commission may be fulfilled.

a. In the case of maps showing generating and transmission features only by keeping a currently correct copy of such map or maps on file at the commission office.

b. In the case of maps showing distribution features only or in the case of maps showing all features of the utilities system, by keeping a currently correct copy of such map or maps on file at utility offices centrally located with respect to the part of the state covered by the map.

20.4(490A) Customer relations.

20.4(1) *Customer information.* Each utility shall:

a. Maintain up-to-date maps, plans, or records of its entire transmission and distribution systems, together with such other information as may be necessary to enable the utility to advise prospective customers, and others entitled to the information, as to the facilities available for serving prospective customers in its service area.

b. Assist the customer or prospective customer in selecting the most economical rate schedule available for his proposed type of service.

c. Notify customers affected by a change in rates or schedule classification in the manner provided in the rules of practice and procedure before the commission.

d. Post a notice in a conspicuous place in each office of the utility where applications for service are received, informing the public that copies of the rate schedules and rules relating to the service of the utility, as filed with the commission, are available for inspection.

e. Upon request, inform its customers as to the method of reading meters.

f. Furnish such additional information as the customer may reasonably request.

20.4(2) Employees responsible for the receiving of customer telephone calls and customer office visits shall be properly qualified and instructed in the screening and prompt handling of complaints to assure prompt reference of the complaint to the person or department capable of effective handling of the matter complained of and to obviate the necessity of the customer's preliminary repetition of the entire complaint to employees lacking in ability and authority to take appropriate action.

20.4(3) *Customer deposits.* Each utility may require from any customer or prospective customer a deposit intended to guarantee payment of bills for service. Such deposit shall not be less than five dollars nor more in amount than the maximum estimated charge for service for two consecutive billing periods or ninety days, whichever is less, or as may reasonably be required by the utility in cases involving service for short periods or special occasions.

20.4(4) *Interest on deposit.* Accrued simple interest on deposits at the rate of at least 5 percent per annum shall be paid by the utility to each customer required to make such a deposit for the time held by the utility. Interest shall be paid from the date of deposit

to the date of refund or the date upon which the customer's account becomes delinquent, whichever is earlier, unless such period be less than six months. Payment of the interest to the customer may be made annually, or at the time the deposit is returned.

The deposit shall cease to draw interest on the date it is returned, on the date upon which the customer's account becomes delinquent, or on the date notice is sent to the customer's last known address that the deposit is no longer required.

20.4(5) Each utility shall keep records to show:

a. The name and address of each depositor.

b. The amount and date of the deposit.

c. Each transaction concerning the deposit.

20.4(6) Each utility shall issue a receipt of deposit to each customer from whom a deposit is received, and shall provide means whereby a depositor may establish his claim if his receipt is lost.

20.4(7) The deposit may be refunded upon request of the customer after twelve consecutive months of prompt payment, and, without such request, shall be refunded by the utility after thirty-six consecutive months of prompt payment unless the utility has evidence to indicate that the deposit is necessary to insure payment of bills for service. The deposit shall be refunded when the customer has paid the final billing upon termination of his service.

20.4(8) A record of each unclaimed deposit must be maintained for at least three years, during which time the utility shall make a reasonable effort to return the deposit. Unclaimed deposits, together with accrued interest, shall be credited to an appropriate account.

20.4(9) A new or additional deposit may be required upon reasonable written notice of the need for such a requirement in any case where a deposit has been refunded or is found to be inadequate to cover the amount as provided for in 20.4(3) above, or where a customer's credit standing is not satisfactory to the utility. The service of any customer who fails to comply with these requirements may be disconnected upon five days written notice.

20.4(10) *Customer bill forms.* Each customer shall be informed as promptly as possible following the reading of his meter, on bill form or otherwise, the following:

a. The reading of the meter at the beginning and at the end of the period for which the bill is rendered.

b. The dates on which the meter was read, at the beginning and end of the billing period.

c. The number and kind of units metered.

d. The applicable rate schedule, or identification of the applicable rate schedule.

e. The gross and net amount of the bill. In the case of prepayment meters, the amount of money collected shall be shown.

f. The date by which the customer must pay the bill in order to benefit from any discount or to avoid any penalty.

g. A distinct marking to identify an estimated bill.

h. A distinct marking to identify a minimum bill.

i. Any conversions from meter reading units to billing units, or any calculations to determine billing units from recording or other devices, or any other factors, such as fuel cost and amount of sales tax adjustments used in determining the bill.

20.4(11) Customer billing information alternate. In lieu of the complete display of such information on the bill, a statement shall be supplied to the customer on the bill form or otherwise advising that such information can be obtained by contacting the utility's local office.

20.4(12) Customer records. The utility shall retain records as may be necessary to effectuate compliance with 20.4(13) and 20.6 (6), but not less than three years. Records for customer shall show where applicable:

- a. KWH meter reading
- b. KWH consumption
- c. KW meter reading
- d. KW measured demand
- e. KW billing demand
- f. Total amount of bill.

20.4(13) Adjustment of bills. Whenever a meter creeps or whenever a metering installation is found upon any test to have an average error of more than 2.0 percent; or a demand metering error of more than 1.5 percent in addition to the errors allowed under accuracy of demand meter; an adjustment of bills for service for the period of inaccuracy shall be made in the case of overregistration and may be made in the case of underregistration. The amount of the adjustment shall be calculated on the basis that the metering equipment should be one hundred percent accurate with respect to the testing equipment used to make the test. For watt-hour meters, the average accuracy shall be the arithmetic average of the percent registration at light load and at heavy load, giving the heavy load registration a weight of four and the light load registration a weight of one.

20.4(14) Determination of adjustment. If the date when the error in registration began can be determined, such date shall be the starting point for determination of the amount of the adjustment except that adjustments due to slow meters shall be limited to the preceding six-month period as in the paragraph below.

If the date when the error in registration began cannot be determined, it shall be assumed that the error has existed for a period

equal to one-half of the time elapsed since the meter was installed or one-half of the time elapsed since the last previous test, or July 4, 1963, whichever is later, except as otherwise provided in the paragraph below, covering error in registration due to creep. Adjustments due to slow meter shall be limited to the preceding six months except that a longer period may be authorized by the commission.

Recalculation of bills shall be on the basis of actual monthly consumption except that if service has been measured by self-contained single-phase meters or three-wire network meters and involves no billing other than for kilowatt-hours, the recalculation of bills may be based on the average monthly consumption determined from the most recent thirty-six months consumption data.

The error in registration due to creep shall be calculated by timing the rate of creeping and assuming that this creeping affected the registration of the meter for twenty-five percent of the time since the meter was installed or since the last previous test, whichever is later.

When the average error cannot be determined by test because of failure of part or all of the metering equipment, it shall be permissible to use the registration of check metering installations, if any, or to estimate the quantity of energy consumed based on available data. The customer must be advised of the failure and of the basis for the estimate of quantity billed. The same periods of error shall be used as defined in paragraphs above.

20.4(15) Refunds. If the recalculated bills indicate that more than one dollar is due an existing customer or two dollars is due a person no longer a customer of the utility, the full amount of the calculated difference between the amount paid and the recalculated amount shall be refunded.

Refunds shall be made to the two most recent consumers who received service through the meter found to be in error. In the case of a previous consumer who is no longer a customer of the utility, a notice of the amount due shall be mailed to such previous consumer at his last-known address, and the utility shall upon demand made within three months thereafter refund the same.

20.4(16) Back billing. If the recalculation of billing indicates that an amount due the utility is equal to or in excess of amounts set forth in 20.4(15) above as minimum refunds, the utility may bill the customer for the amount due.

Each utility may establish a policy whereby the minimum sum above which it will commence back billing for amounts due to underregistration is in excess of the amounts set forth in 20.4(15) above as minimum refunds. In such cases the minimum sum established as the amount above which the utility will commence back billing shall determine in all cases of underregistration whether the customer will be billed for the amount due the utility because of underregistration.

a. When a customer has been overcharged as a result of incorrect reading of the meter, incorrect application of the rate schedule, incorrect connection of the meter or other similar reasons, the amount of the overcharge shall be adjusted, refunded or credited to the customer.

b. When a customer has been undercharged as a result of incorrect reading of the meter, incorrect application of the rate schedule, incorrect connection of the meter or other similar reasons, the amount of the undercharge may be billed to the customer.

20.4(17) Reasons for denying and discontinuing service. Service may be refused or discontinued for any of the reasons listed below. Unless otherwise stated, the customer shall be allowed a reasonable time in which to comply with the rule before service is discontinued. No service shall be disconnected on the day preceding a day or days on which the utility's business office is closed, except as provided in 20.4(17) "a" and 20.4(17) "b". Service may be refused or discontinued:

a. Without notice in the event of a condition on the customer's premises determined by the utility to be hazardous.

b. Without notice in the event of customer use of equipment in such a manner as to adversely affect the utility's equipment or the utility's service to others.

c. Without notice in the event of tampering with the equipment furnished and owned by the utility.

d. Without notice in the event of unauthorized use.

e. For violation of or noncompliance with the utility's rules on file with the commission.

f. For failure of the customer or prospective customer to furnish such service equipment, permits, certificates or rights of way as are specified to be furnished, in the utility's rules filed with the commission, as conditions of obtaining service, or for the withdrawal of that same equipment or for the termination of those same permissions or rights, or for the failure of the customer or prospective customer to fulfill the contractual obligations imposed upon him as conditions of obtaining service by any contract filed with and subject to the regulatory authority of the commission.

g. For failure of the customer to permit the utility reasonable access to its equipment.

h. For nonpayment of bill provided that the utility has made a reasonable attempt to effect collection and has given the customer written notice that he has at least five days, excluding Sundays and holidays, in which to make settlement on his account or have his service discontinued or denied.

i. For failure of the customer to provide the utility with a deposit as authorized by 20.4(3).

20.4(18) Insufficient reasons for denying service. The following shall not constitute

sufficient cause for refusal of service to a present or prospective customer:

a. Delinquency in payment for service by a previous occupant of the premises to be served.

b. Failure to pay for merchandise purchased from the utility.

c. Failure to pay for a different type or class of public utility service.

d. Failure to pay the bill of another customer as guarantor thereof.

e. Failure to pay a back bill rendered in accordance with 20.4(16).

f. Failure to pay a bill rendered in accordance with 20.4(16) "b".

20.4(19) Estimated demand. Upon request of the customer and provided the customer's demand is estimated for billing purposes, the utility shall measure the demand during the customer's normal operation and use the measured demand for billing.

20.4(20) Servicing utilization control equipment. Each utility shall service and maintain any equipment it uses on customer's premises and shall correctly set and keep in proper adjustment any thermostats, clocks, relays, time switches or other devices which control the customer's service in accordance with the provisions in the utility's rate schedules.

20.4(21) Customer complaints. Complaints concerning the charges, practices, facilities or service of the utility shall be investigated promptly and thoroughly. The utility shall keep such records of customer complaints as will enable it to review and analyze its procedures and actions.

20.4(22) Temporary service. When the utility renders temporary service to a customer it may require that the customer bear all the cost of installing and removing the service facilities in excess of any salvage realized.

20.4(23) Change in type of service. If a change in the type of service, such as from twenty-five to sixty-cycle or from direct or alternating current, or a change in voltage to a customer's substation, is effected at the insistence of the utility and not solely by reason of increase in the customer's load or change in the character thereof, the utility shall share equitably in the cost of changing the equipment of the customer affected as determined by the commission in the absence of agreement between utility and customer. In general, the customer should be protected against or reimbursed for the following losses and expenses to an appropriate degree:

a. Loss of value in his electrical power utilization equipment.

b. Cost of changes in wiring, and

c. Cost of removing old and installing new utilization equipment.

20.5(490A) Engineering practice.

20.5(1) Requirement for good engineering practice. The electric plant of the utility shall be constructed, installed, maintained and oper-

ated in accordance with accepted good engineering practice in the electric industry to assure, as far as reasonably possible, continuity of service, uniformity in the quality of service furnished, and the safety of persons and property.

20.5(2) Acceptable standards. The utility shall use the applicable provisions in the publications listed below as standards of accepted good practice unless otherwise ordered by the commission.

a. Iowa Electrical Safety Code.

b. National Electrical Code, NFPA No. 70, ASA C-1-7-24-62.

c. American Standard Code for Electricity Metering, ASA C-12 — 1965.

d. American Standard Requirements, Terminology and Test Code for Instrument Transformers, ASA C57.13—1954.

20.5(3) Adequacy of supply and reliability of service. The generating capacity of the utility's plant, supplemented by the electric power regularly available from other sources, must be sufficiently large to meet all normal demands for service and provide a reasonable reserve for emergencies.

In appraising adequacy of supply the commission will segregate electric utilities into two classes, viz., those having high capacity transmission interconnections with other electrical utilities and those which lack such interconnection and are therefore completely dependent upon the firm generating capacity of the utility's own generating facilities.

a. In the case of utilities having interconnecting ties with other utilities, the commission will, upon appraising adequacy of supply, take appropriate notice of the utility's recent past record, as of the date of appraisal, of any widespread service interruptions and any capacity shortages along with the consideration of the supply regularly available from other sources, the normal demands, and the required reserve for emergencies.

b. In the case of noninterconnected utilities the commission will give attention to the maximum total coincident customer demand which could be satisfied without the use of the single element of plant equipment, the disability of which would produce the greatest reduction in total net plant productive capacity and also give attention to the normal demands for service and to the reasonable reserve for emergencies.

20.5(4) Electric transmission and distribution facilities. The utility's electrical transmission and distribution facilities shall be designed, constructed, maintained and electrically re-enforced and supplemented as required to reliably perform the power delivery burden placed upon them in the storm and traffic hazard environment in which they are located. Each utility shall carry on an effective preventive maintenance program and shall be capable of emergency repair work on a scale which its storm and traffic damage record indicates as

appropriate to its scope of operations and to the physical condition of its transmission and distribution facilities.

In appraising the reliability of the utility's transmission and distribution system the commission will consider the condition of the physical property and the size, training, supervision, availability, equipment and mobility of the maintenance forces all as demonstrated in actual cases of storm and traffic damage to the facilities.

20.5(5) Inspection of electric plant. Each utility shall adopt a program of inspection of its electric plant in order to determine the necessity for replacement and repair. The period between inspections of various elements of the plant shall be based on the utility's experience and accepted good practice in the industry. Each utility shall keep sufficient records to give evidence of compliance with its inspection program.

20.6(490A) Meter tests.

20.6(1) Request tests. Upon request by a customer, the utility shall make a test of the meter serving him, provided that such tests need not be made more frequently than once in twelve months. The customer, or his representative, may be present when his meter is tested. If the meter is found accurate under the provisions of 20.4(13) the utility may charge the consumer not to exceed five dollars or the actual cost of such test whichever is lesser.

A report of the results of the test shall be made to the customer within a reasonable time after the completion of the test, and a record of each test shall be kept on file at the office of the utility.

Any additional test of a customer meter requested to be made within the twelve months next following a request test of the same meter shall be a referee test as hereinafter provided unless the utility voluntarily agrees to make such an additional test as a request test.

20.6(2) Referee tests. Upon written application transmitted by certified or registered mail to the commission by a customer or a utility, a test will be made of the customer's meter as soon as practicable under the observation of a representative of the commission.

A customer's application for a referee test shall be accompanied by a certified check or money order made payable to the utility in the amount of ten dollars.

On receipt of such request from a customer the commission will forward the deposit to the utility and will notify the utility of the requirement for the test and the utility shall not knowingly remove or adjust the meter until instructed by the commission. The utility shall furnish all instruments, load devices and other facilities necessary for the test and shall perform the test in the presence and under the observation of the commission's representative and shall furnish verification of the accuracy of test instruments used.

If upon test the meter is found to over-register to an extent requiring a refund under the provisions of 20.4(13), the amount paid to the utility for the test shall be returned to the customer by the utility. The customer, or his representative, may be present when his meter is tested. The commission will make a written report of the results of the test to the customer and to the utility.

20.6(3) Preinstallation inspections and tests. Every meter and associated device shall be inspected and tested before being placed in service, and the accuracy of each meter shall be certified to be within the tolerance permitted by 20.6(12). A meter manufacturer's certification approved by the commission and supplemented by an acceptable statistical sampling program shall suffice for this purpose.

If a meter is removed from a customer's premises, except for field testing, it must be inspected and tested as above, before it is again placed in service.

20.6(4) Postinstallation inspections. These inspections are made to determine proper operation and wiring connections and must be made within sixty days after installation by a qualified person who, whenever possible, should be someone other than the original installer. The following equipment is subject to postinstallation inspections:

- a. Meters associated with instrument transformers, excluding single-phase current transformer metering installations, or phase shifting transformers together with all such associated equipment.
- b. Kilovar-hour meters.
- c. Demand meters.
- d. Direct current watt-hour meters.

20.6(5) As found tests. All meters and all associated devices shall be tested after they are removed from service. Such tests shall be made before the meters or associated devices are adjusted, repaired, returned to active service or retired.

20.6(6) In-service performance tests. In-service performance tests must be made in accordance with 20.6(7), 20.6(8) or 20.6(9). These tests may be made on the customer's premises or in the utility's meter shop. However, it is recommended that meters associated with instrument transformers, or phase shifting transformers, or those having mechanical contact devices, be tested on the customer's premises. Tests made for other purposes, such as request or referee tests, shall not be counted as in-service performance tests.

All self-contained single-phase meters and three-wire network meters on a utility's system must be tested in accordance with a single program, which must be one of the following:

- a. At a fixed periodic interval, see 20.6(7).
- b. At a variable interval, see 20.6(8).
- c. By statistical sampling, see 20.6(9).

20.6(7) Periodic test schedule. In the test intervals specified below the word "years"

means calendar years and the word "month" means calendar months. The basic periodic test interval shall not be longer than provided for in the following schedule:

- a. Alternating current watt-hour meters:
 - (1) Meters used with instrument transformers
 - Polyphase meters 4 years
 - Single-phase meters 8 years
 - (2) Self-contained poly-phase meters 6 years
 - (3) Self-contained single-phase meters and three-wire network meters 8 years
- b. Direct current watt-hour meters:
 - (1) Up to and including 6 KW 42 months
 - (2) Over 6 KW up to and including 100 KW 18 months
 - (3) Over 100 KW 12 months
- c. Var-hour meters: Same as the schedule for associated watt-hour meters.
- d. Demand meters:
 - (1) Integrated (block interval) demand meters including demand registers and associated control devices: Same as the schedule for associated watt-hour meters, but not to exceed six years.
 - (2) Lagged demand meters: Same as the schedule for associated watt-hour meters.
- e. Secondary standards:
 - (1) Portable rotating standard watt-hour meters 12 months
 - (2) Indicating volt-meters 12 months
 - (3) Instrument transformers 10 years
- f. Working standards and instruments:
 - (1) Portable rotating standard watt-hour meters — induction type 2 weeks
 - (2) Indicating volt-meters 3 months
 - (3) Instrument transformers 10 years

20.6(8) Variable interval plan. The variable interval plan described below may be used for testing self-contained single-phase meters and three-wire network meters.

The meters shall be divided into homogeneous groups such as by manufacturers' types, and may be further subdivided in accordance with location or other factors which may be disclosed by test records to have an effect on the percentage registration of the meters. Subsequently, groupings may be modified or combined if justified by the performance records. The meters to be tested shall be those longest in service without test.

The percentage, P, of meters to be tested in each group during the current year is dependent upon the number of meters which on in-service test during the preceding year were found to have a percentage registration of more than 102 percent or less than 98 percent.

The maximum value of P shall be 25 percent and the minimum value shall be not less than:

a. Five percent for a group of 2,000 or more meters.

b. One hundred meters or 12.5 percent, whichever is less, for a group of fewer than 2,000 meters.

The values of P between the maximum and minimum shall be determined from the formula

$$P=K \left(\frac{100 (F + S)}{T} - 1 \right)$$

Where:

T = total number of meters tested in the group during the preceding year,

F = number of meters in this group which registered more than 102 percent,

S = number of meters in this group which registered less than 98 percent, and

K = an empirical constant selected to provide for the test of a sufficient number of meters in the group to insure that an acceptable standard of performance is being maintained. The value of K = 6.25 is recommended as an empirical constant which will accomplish this end.

The variable interval plan shall be accompanied by a liberal policy for testing meters on request and a procedure whereby unusually high or low bills for service will be detected and investigated and any utility proposing to use this plan shall submit information to the commission as to its method of detection and investigation of unusually high and low bills and obtain the commission's approval before adopting or continuing use of the variable interval plan.

20.6(9) Statistical sampling. Statistical sampling for self-contained single-phase meters and three-wire network meters may be used in lieu of periodic or variable interval testing upon approval by the commission. The program used shall conform to accepted principles of statistical sampling based on either variables or attributes methods and should be evaluated by impartial mathematical statisticians.

A statistical sampling program shall include an adequate policy for testing meters on request and a procedure, approved by the commission, whereby unusually high or low bills for service would be detected and investigated. The meters shall be divided into homogeneous groups such as by manufacturer's types, and may be further subdivided in accordance with location or other factors which may be disclosed by test records to have an effect on the percentage registration of the meters. Subsequently, groupings may be modified or combined if justified by the performance records. A sample shall be taken each year from each homogeneous group. It is extremely important that each meter in the sample be drawn at random. Every meter in the group must have an equal chance to be drawn. In order to accomplish this aim it is advisable to use a table of random numbers as an aid in assembling the sample.

The sample taken each year shall be of sufficient size to demonstrate with reasonable assurance the condition of the group from which the sample is drawn. A minimum sample size should be specified and may be expressed as a combination of a number and percentage, such as, "100 meters or 12.5 percent, whichever is less." The sampling plan shall contain a table of mathematically calculated sample sizes and related constants for determining the characteristics of the homogeneous group, accompanied by curves for determining the risk of making an incorrect decision. An acceptable sampling plan is one in which sample will, 95 times out of 100, correctly identify a homogeneous group of meters which has at least 97.5 percent of the group within the limits 98 percent-102 percent registration on in-service performance test. Plans based on the variables method shall use a sample of at least 100 meters, and plans based on the attributes method shall use a sample of at least 300 meters; however, except for corrective procedures, the sample size need not exceed 10 percent of the group. If a group of meters does not meet the acceptable performance criteria, then corrective action must be taken.

The corrective action shall consist of either an accelerated test program to raise the accuracy performance of the group to acceptable standards or removing the group from service. An accelerated test program shall provide for testing at rates which vary in accordance with the calculated percentage of defective meters in rejected groups. In its application to an individual group the rate of testing shall be such that the required corrective action is completed within four years unless a longer period is authorized by the commission, but not more than 25 percent of the meters in the group need to be tested in any one year. Accelerated testing may be discontinued when the test results indicate that the rejected group is within acceptable limits.

Records shall be maintained and tabulated to indicate the number of meters in each homogeneous group in service at the beginning of each year, the number of meters making up the sample for each homogeneous group, the test results for each group, and any necessary corrective action taken.

20.6(10) Instrument transformer tests. Instrument transformers shall be tested:

- a. When first received.
- b. When removed from service.
- c. Upon complaint.
- d. When there is evidence of damage.
- e. Whenever an approved check, such

as the variable burden method in the case of current transformers, made whenever the meter is tested, indicates that a quantitative test is required.

20.6(11) Generating station meter tests. Generator output wattmeters in the utility's generating stations shall be tested according to a suitable schedule by comparison with the utility's working standards.

20.6(12) Test procedures and accuracies.

Meters and/or associated devices shall be tested at the loads indicated below and, when found to exceed the tolerances prescribed below, shall be adjusted as close as practicable to zero error. The test of any unit of metering equipment shall consist of a comparison of its accuracy with the accuracy of a standard. The commission will use the applicable provisions of the American Standard Code for Electricity Metering ASA C12, as criteria of accepted good practice.

a. Alternating current watt-hour meters.

(1) Shop tests

Test Load as Approximate Percentage

OF TEST CURRENT	POWER FACTOR	TOLERANCES
100	1.0	±1.0%
10	1.0	±1.0%
100	0.5	±2.0%

(2) Field tests

Test Load as Approximate Percentage

OF TEST CURRENT	POWER FACTOR	TOLERANCES
100	1.0	±1.0%
10	1.0	±1.0%

b. Direct current watt-hour meters.

Test Load as Approximate Percentage

OF TEST CURRENT	TOLERANCES
100	±1.5%
10	±1.5%

c. Demand meters.

(1) Integrated (block interval) demand meters.

Demand meters which are direct driven shall be tested at a load point no less than fifty percent of full scale. Tests shall be continuous for at least one demand interval and shall be started simultaneously with the demand interval of the demand meter.

Demand meters which are actuated by impulses shall be tested by transmitting enough impulses to cause the meter to register at a load point no less than fifty percent of full scale. If an impulse actuated demand meter is equipped with a device which records the number of impulses received by the meter, and if there is frequent and accurate comparison of such record with the number of kilowatt hours registered on the associated watt-hour meter, then it is not necessary to make a periodic field test of the demand meter.

Demand meters shall be adjusted to indicate zero under no-load conditions, and shall be checked to ascertain that the meter resets to zero. Impulse devices associated with demand meters must be checked for proper operation. The demand meter shall have an accuracy of within two percent of full scale. The time interval must be accurate within 0.5 percent for synchronous motor timing elements and within two percent for mechanical clock timing elements. Meters recording demand readings on a chart which provides a record of the time at which the demand occurs shall be accurate to within plus or minus four minutes in twenty-four hours.

(2) Lagged demand meters.

Demand meters shall be tested at a load point no less than fifty percent of full scale.

Demand meters shall be adjusted to indicate zero under no-load conditions with potential applied.

The demand meter shall have an accuracy within three percent of full scale.

Meters recording demand readings on a chart which provides a record of the time at which the demand occurs shall be accurate to within plus or minus four minutes in twenty-four hours.

d. Instrument transformers.

All current and potential transformers shall be tested in accordance with the procedures prescribed in American Standards Association Code ASA C57.13. Any utility unable to perform the above test due to a lack of proper equipment may have its instrument transformers tested by another utility whose testing equipment conforms to the requirements of the commission. In lieu of utility testing of instrument transformers the commission will accept the certificate of test as furnished by the manufacturer.

Current or potential transformers shall not be installed in metering service if their accuracy does not fall within the 0.6 accuracy class as described in ASA C57.13.

e. Meters for measurement of purchased electricity. Utilities purchasing electricity from nonutilities or from utilities outside the state must verify that the instruments and meters which are necessary to furnish complete and accurate information as to the energy purchased are installed and tested in accordance with the requirements of the commission.

20.6(13) General. All meters and associated devices, when tested, shall be adjusted as closely as practicable to the condition of zero error. All tolerances are to be interpreted as maximum permissible variations from the condition of zero error. In making adjustments, no advantage of the prescribed tolerance limits shall be taken.

Meters shall not "creep", i.e., there shall be no continuous unidirectional rotation of the moving element of a meter when the meter load wires have been removed and rated voltage is applied to the potential elements of the meter.

20.6(14) Facilities and equipment for meter testing. Each utility shall maintain a meter shop for the purpose of inspecting, testing, and repairing meters. The shop shall be open for inspection by authorized representatives of the commission at all reasonable times, and the facilities and equipment, as well as the methods of measurements and testing employed, shall be subject to the approval of the commission. A utility may, however, have all or part of the required tests, repairs and adjustments made or its portable testing equipment checked by another agency having adequate and sufficient testing equipment to comply

with these rules and approved by the commission.

Each meter shop at which the utility conducts tests of meters shall have a voltage supply adequate to make the appropriate tests.

20.6(15) Secondary standards. Each utility shall have at least one portable rotating standard watt-hour meter with a correction of not more than 0.5 percent at commonly used loads. If the correction percentage varies between successive tests by more than 0.25 a complete check must be made to determine the cause of such variation. If the cause of variation cannot be removed, the use of the instrument shall be discontinued. Secondary standards must be checked periodically [see 20.6(7) "e"] at the national bureau of standards or at a laboratory acceptable to the commission.

20.6(16) Working standards. Each utility shall have at least one portable rotating standard watt-hour meter with a correction of not more than 0.5 percent at commonly used loads. If the correction percentage varies between successive tests by more than 0.25 a complete check must be made to determine the cause of such variation. If the cause of variation cannot be removed, the use of the instrument shall be discontinued. Working standards must be checked periodically [see 20.6(7) "f"] by comparison with a secondary standard in the utility's meter shop.

20.6(17) Extreme care must be exercised in the handling of standards to assure that their accuracy is not disturbed. Each standard shall be accompanied at all times by a certificate or calibration card, duly signed and dated, on which are recorded the corrections required to compensate for errors found at the customary test points at the time of the last previous test.

20.6(18) Records of meters and associated metering devices. Each utility shall maintain records of the following data, where applicable, for each meter and together with an associated device until retirement:

a. The complete identification—number, type, voltage, amperes, number of wires, number of stators, disk constant (K_d), demand interval, and ratio.

b. The dates of installation and removal from service, together with the location.

c. Primary rating, ratio and burden data for instrument transformers.

20.6(19) Meter test records. Each utility shall maintain records of the last two tests made of any meter. The record of the meter test made at the time of the meter's retirement shall be maintained for a minimum of three years. Test records shall include the following:

a. The date and reason for the test.

b. The reading of the meter before making any test.

c. The accuracy "as found" at light and heavy loads.

d. The accuracy "as left" at light and heavy loads.

e. Statements of repairs made, if any.

20.7(490A) Standards of quality of service.

20.7(1) Standard frequency. The standard frequency for alternating current distribution systems shall be sixty cycles per second. The frequency shall be maintained within limits which will permit the satisfactory operation of customer's clocks connected to the system.

20.7(2) Voltage limits. Each utility shall adopt and file with the commission, standard nominal service voltages for each of the several areas into which its distribution system or systems may be divided.

20.7(3) Secondary voltages. For all retail service, except power service, the variations of voltage shall be no more than six percent above or below the standard voltage at any time. For retail power service the variation of voltage shall be no more than ten percent above or below the standard voltage at any time.

Where three-phase service is provided the utility shall exercise reasonable care to assure that the phase voltages are in balance.

20.7(4) Primary voltages. For service rendered principally for industrial or power purposes the voltage variation shall not exceed ten percent above or ten percent below the standard nominal voltages as filed in the utility's rules.

For service rendered to public utilities and others for resale, the nominal voltage shall be as mutually agreed upon by the parties concerned. The allowable variation shall not exceed 7.5 percent above or 7.5 percent below the agreed upon nominal voltage without the express approval of the commission.

The limitations stated in this subsection shall not apply to special contracts in which the customer specifically agrees to accept service with unregulated voltage.

20.7(5) Exceptions to voltage requirements. Voltage outside the limits specified will not be considered a violation when the variations:

a. Arise from the action of the elements.

b. Are infrequent fluctuations not exceeding five minutes duration.

c. Arise from service interruptions.

d. Arise from temporary separation of parts of the system from the main system.

e. Are from causes beyond the control of the utility.

20.7(6) Voltage surveys and records. Voltage measurements shall be made at the customer's entrance terminals. For single-phase service the measurement shall be made between the grounded conductor and the ungrounded conductors. For three-phase service the measurement shall be made between the phase wires.

20.7(7) Each utility shall make a sufficient number of voltage measurements, using recording voltmeters, in order to determine if voltages are in compliance with the requirements as stated in 20.7(2), 20.7(3), 20.7(4). All voltmeter records obtained under 20.7(7) shall be retained by the utility for at least two years and shall be available for inspection by the commission's representatives. Notations on each chart shall indicate the following:

a. The location where the voltage was taken.

b. The time and date of the test.

c. The results of the comparison with an indicating voltmeter.

20.7(8) *Equipment for voltage measurements.*

a. *Standards.* Each utility shall have available at least one indicating voltmeter with a stated accuracy within 0.25 percent of full scale. This instrument must be maintained within its stated accuracy.

b. *Working instruments.* Each utility shall have at least two indicating voltmeters with a stated accuracy within one percent of full scale.

c. Each utility must have readily available at least two portable recording voltmeters with a stated accuracy within 1.5 percent of full scale.

20.7(9) Standards must be checked periodically [see 20.6(7) "e"] at the national bureau of standards, or at a laboratory acceptable to the commission. Working instruments must be checked periodically [see 20.6(7) "f"] by comparison with a standard in the meter shop used by the utility.

20.7(10) Extreme care must be exercised in the handling of standards and instruments to assure that their accuracy is not disturbed. Each standard shall be accompanied at all times by a certificate or calibration card, duly signed and dated, on which are recorded the corrections required to compensate for errors found at the customary test points at the time of the last previous test.

20.7(11) *Interruptions of service.* Each utility shall make reasonable efforts to avoid interruptions of service but when interruptions occur, service shall be re-established within the shortest time practicable, consistent with safety.

20.7(12) Each utility shall keep records of interruptions of service on its primary distribution system and shall make an analysis of the records for the purpose of determining steps to be taken to prevent recurrence of such interruptions. Such records should include the following information concerning the interruptions:

a. Cause.

b. Date and time.

c. Duration.

The log for each unattended substation must show interruptions which require attention to

restore service, with the estimated time of interruption.

20.7(13) Planned interruptions shall be made at a time that will not cause unreasonable inconvenience to customers and shall be preceded, if feasible, by adequate notice to those who will be affected.

20.8(490A) Safety.

20.8(1) *Protective measures.* Each utility shall exercise reasonable care to reduce those hazards inherent in connection with its utility service and to which its employees, its customers, and the general public may be subjected and shall adopt and execute a safety program designed to protect the public and fitted to the size and type of its operations.

20.8(2) The utility shall give reasonable assistance to the commission in the investigation of the cause of accidents and in the determination of suitable means of preventing accidents.

20.8(3) Each utility shall maintain a summary of all reportable accidents arising from its operations.

20.8(4) *Grounding of secondary distribution system.* Unless otherwise specified by the commission, each utility shall comply with, and shall encourage its customers to comply with, the applicable provisions in the Iowa electrical safety code for the grounding of secondary circuits and equipment.

Ground connections should be tested for resistance at the time of installation unless multigrounding is used. The utility shall keep a record of all ground resistance measurements.

The utility shall establish a program of inspection so that all artificial grounds installed by it shall be inspected within reasonable periods of time.

[Filed July 12, 1966]

CHAPTER 21 SERVICE SUPPLIED BY WATER UTILITIES

21.1(490A) General information.

21.1(1) *Authorization of rules.* Chapter 490A of the Code provides that the Iowa state commerce commission shall establish all needful, just and reasonable rules, not inconsistent with law, to govern the exercise of its powers and duties, the practice and procedure before it, and to govern the form, contents and filing of reports, documents and other papers necessary to carry out the provisions of this law.

21.1(2) *Application of rules.* The rules shall apply to any water utility operating within the state of Iowa under the jurisdiction of the Iowa state commerce commission and are made pursuant to chapter 490A of the Code.

These rules are intended to promote safe and adequate service to the public, to provide standards for uniform and reasonable prac-

tices by utilities, and to establish a basis for determining the reasonableness of such demands as may be made by the public upon the utilities.

If unreasonable hardship to a utility or to a customer results from the application of any rule herein prescribed, application may be made to the commission for the modification of the rule or for temporary or permanent exemption from its requirements.

The adoption of these rules shall in no way preclude the commission from altering or amending them, or from making such modifications with respect to their application as may be found necessary to meet exceptional conditions.

These rules shall in no way relieve any utility from any of its duties under the laws of this state.

21.1(3) Definitions.

a. "Acquisition" as used herein refers only to the acquisition of a unit of plant in place and ready for operation and does not include the purchase of materials or equipment for later installation.

b. "Commission" as used in these rules shall be construed to mean the Iowa state commerce commission, and sometimes hereinafter referred to as I.S.C.C.

c. "Customer" as used in these rules shall be construed to mean any person, co-partnership, firm, association, corporation, their lessees, trustees, or receivers appointed by any court, or agency of the federal, state or local government, being supplied with water service by a water utility.

d. "Gross property additions" means the sum total of construction cost and appropriate overhead costs as defined in Instruction 3, Components of Construction Cost, and Instruction 4, Overhead Construction Costs of the Utility Plant Instructions of the Uniform System of Accounts for Water Utilities as adopted by this commission.

e. "Distribution main" means water pipe owned, operated, or maintained by a utility which is used for the purpose of distribution of water from which service connections with customers are taken.

f. "Main" or "mains" shall mean any pipe, conduit or other conveyance through which water for public use may be transmitted or distributed. It shall include trenches or other structures in or upon which such pipe, conduit or other conveyance is carried, and also land, easements or other rights of occupancy or use requisite for the construction and operation of such pipe, conduit or other conveyance.

g. "Meter", without other qualifications, shall mean any device or instrument used for the purpose of measuring a quantity of water by a water utility.

h. "Municipality" refers to any town, village or city.

i. "Service connection" shall be construed to mean the line from the main to the customer's property line, and shall include all

of the pipe fittings and valves necessary to make the connection.

j. "Service pipe" or "service line" shall mean the pipe that runs between the distribution main and the customer's place of consumption.

(1) "Company service pipe" shall mean that portion of the service pipe installed at the cost and expense of the utility.

(2) "Customer's service pipe" shall be that portion of the service pipe installed at the cost and expense of the customer.

k. "Transmission main" is used for conveying water to the distribution system, reservoirs, tanks or stand pipes, and has generally no service connections with customers.

l. "Utility" as used in these rules shall be construed to mean any person, partnership, business association or corporation, domestic or foreign, owning or operating any facilities for furnishing water to the public for compensation, when subject to the jurisdiction of this commission, their lessees, trustees, or receivers, appointed by any court whatsoever, that may now or hereafter be engaged as a public utility in the business of furnishing water to domestic, commercial, industrial or municipal customers in the state of Iowa.

m. "Premises" as used herein shall be restricted to the following:

(1) A building under one roof owned or leased by one customer and occupied as one residence or one place of business.

(2) A combination of buildings owned or leased by one customer, in one common enclosure occupied by one family as a residence or one corporation or firm as a place of business.

(3) Each unit of a multiple house or building separated by a solid vertical partition wall occupied by one family as a residence or one firm as a place of business.

(4) A building owned or leased by one customer and having a number of apartments, offices, or lofts which are rented to tenants using in common one hall and one or more means of entrance.

(5) A building two or more stories high under one roof owned or leased by one customer and having an individual entrance for the ground floor occupants and one for the occupants of the upper floors.

(6) A combination of buildings, such as a garden-type apartment, owned by one customer, in one common enclosure, none of the individual buildings of which is adapted to separate ownership.

(7) A public building.

(8) A single plot, used as a park or recreational area.

n. "Property" shall mean all facilities owned and operated by a water utility.

21.2(490A) Records and reports.

21.2(1) *Location of records.* All records required by these rules, or necessary for the administration thereof, shall be kept within the state at an office or offices of the utility un-

less otherwise authorized by the commission and shall be reasonably accessible and available for examination by the commission or its authorized representatives at all reasonable hours.

21.2(2) Retention of records. Unless otherwise specified by the commission, all records required by these rules shall be preserved for the period of time specified in the revised 1963 edition of the National Association of Regulatory Utility Commissioners' publication "Regulations to Govern the Preservation of Records of Electric, Gas and Water Utilities", as provided in chapter 18 of the rules of the utilities division, Iowa state commerce commission, as presently constituted or revised in the future.

Where machine billing is used and meter readings recorded on tabulating cards, the register sheets may be considered the "meter reading sheets" and the "billing records." "Meter reading sheets" and "billing records" or the "register sheets" shall be kept six years or until they are no longer needed to adjust bills. This means that the records must be kept six years or from the date of one meter test to the next, whichever is longer.

21.2(3) Tariffs to be filed with the commission. The utility shall file its tariff with the commission, and shall maintain such tariff filing in a current status. The schedules of rates and rules of all rate regulated utilities shall be filed with the commission and shall be classified, designated, arranged and submitted so as to conform to the requirements of current tariff or rate schedule circulars and special instructions which have been or may from time to time be issued by the commission. Provisions of the schedules shall be definite and so stated as to minimize ambiguity or the possibility of misinterpretation. The form, identification and content of tariffs shall be in accordance with these rules.

21.2(4) Form and identification. All tariffs shall conform to the following rules:

a. The tariff shall be printed, typewritten or otherwise reproduced on 8½ x 11 inch sheets of white paper equal in durability to twenty-pound bond paper with twenty-five percent cotton or rag content so as to result in a clear and permanent record. The sheets of the tariff should be ruled or spaced to set off a border on the left side suitable for binding. In the case of utilities subject to regulation by any federal agency, the format of sheets of tariff as filed with the commission may be the same format as is required by the federal agency provided that the rules of the commission as to title page, identity of superseding, replacing or revision sheets, identity of amending sheets, identity of the filing utility, issuing official, date of issued, effective date, and the words "Filed with the iscc" shall apply in the modification of the federal agency format for the purposes of filing with this commission.

b. The title page of every tariff and supplement shall show in the order named:

(1) The first page shall be the title page which shall show:

..... WATER TARIFF
(Name of Public Utility)

Filed with Iowa State Commerce Commission (Date).

(2) When a tariff is to be superseded or replaced in its entirety, the replacing tariff shall show on its title page that it is a revision of a tariff on file.

(3) When a revision or amendment is made to a filed tariff, the revision or amendment shall show on each sheet the designation of the original tariff or number of the immediate proceeding, revision or amendment which it replaces. (See exhibit A)

(4) When a new part of a tariff eliminates an existing part of a tariff, it shall so state and identify the part eliminated. (See exhibit A)

(5) Any tariff modifications as defined in (2), (3) or (4) above replacing tariff sheets shall be marked in the right margin with symbols as herein described to indicate the place, nature and extent of the change in text.

Symbol Meaning

- (C) A change in regulation.
- (D) A discontinued rate, treatment or regulation.
- (I) An increased rate or new treatment resulting in increased rate.
- (N) A new rate, treatment or regulation.
- (R) A reduced rate or new treatment resulting in a reduced rate.
- (T) A change in text but no change in rate, treatment or regulation.

c. All sheets except the title page shall have, in addition to the above-stated requirements, the following further information:

(1) Name of utility tariff under which shall be set forth the words "Filed with the iscc". (See exhibit A)

If the utility is not a corporation, and a trade name is used, the name of the individual or partners must precede the trade name.

(2) Issuing official and issue date.

(3) Effective date.

21.2(5) Content of tariffs. A tariff filed with the commission shall contain:

a. *Table of contents.* A table of contents containing a list of rate schedules and other sections in which they appear showing the sheet number of the first page of each section.

b. *Rates.* All rates of utilities subject to rate regulation for service with indication for each rate of the type of water service and the class of customers to which each rate applies. There shall also be shown the prices per unit of service, and the number of units per billing period to which the prices apply, the period of billing, the minimum bill method of measuring demands and consumptions, including method of calculating or estimating loads or minimums, and any special terms and conditions applicable. The discount for

prompt payment or penalty for late payment, if any, and the period during which the net amount may be paid shall be specified.

c. Utility's rules. A copy of the utility's rules, or terms and conditions, describing the utility's policies and practices in rendering service, shall include:

(1) The list of the items which the utility furnishes, owns, and maintains on the customer's premises, such as water services, meters, and shut-off valves.

(2) General statement of the utility's policy in making adjustments for wastage of water when such wastage occurs without the knowledge of the customer.

(3) A statement indicating the minimum number of days allowed for payment of a customer's bill before service will be discontinued for nonpayment.

(4) A copy of each standard and special type of contract for service.

(5) A copy of each type of customer bill form.

(6) The name, title, address, and telephone number of the person who is authorized to receive, act upon and respond to matters in connection with general management duties, customer relations (complaints), engineering operations, meter tests and repairs and emergencies during nonoffice hours.

(7) The location at which the utility keeps the various classes of records required by these rules.

(8) List of towns, cities, and unincorporated communities where urban rates are applicable, and towns in which service is furnished.

(9) Definitions of classes of customers.

(10) Extension rules for extending service to new customers indicating what portion of the extension or cost thereof will be furnished by the utility; and if the rule is based on cost, the items of cost included as required in 21.3(12).

(11) Rules with which prospective customers must comply as a condition of receiving service, and the terms of contracts required.

(12) Rules governing the establishment of credit by customers for payment of service bills.

(13) Rules governing disconnecting and reconnecting service.

(14) Notice required from customer for having service discontinued.

(15) Rules governing temporary, emergency, auxiliary, and standby service.

(16) Rules shall show any limitations on loads and covering the type of equipment which may or may not be connected.

(17) A notification to the commission shall be made of any planned change in rate of service by a utility even though the change in rate of service is provided for in its tariff filing with the commission. This information shall reflect the amount of increase or decrease and the effective date of application.

d. Changes in tariffs. Changes in tariffs or rate schedules, rules or regulations

which are included in a tariff, may be made by filing an entire new tariff or by filing additional original sheets or revised sheets, which shall be numbered and identified as provided in 21.2(4). The proposed change shall be indicated on the additional original sheet or on the revised sheet by an asterisk immediately preceding the item or by some other method of symbols with an explanation in the schedule of the symbols used. Where a new ruling eliminates a rate schedule, rule or regulation, it shall so state.

21.2(6) System maps verification. A utility shall file annually with the commission a verification that it has a currently correct set of utility system maps or other records for each operating or distribution area. The maps or other records shall show:

a. Location of all principal pumping stations, filter plants, sources of supply, storage facilities and size, character and location of all mains, including valves, pressure gauges, and fire hydrants.

b. Location, size, and kind of each service pipe, where practicable. In lieu of showing service locations on maps, a card record or other suitable means may be used.

c. Layout of all principal pumping stations, filter plants to show size, location and character of all major equipment, pipe lines (composition), connections, valves, and other equipment used.

d. The date of construction of all principal items of plant and extensions of main.

e. State boundary crossings.

f. Franchise area.

g. Names of all communities (post offices) served.

21.2(7) Accident reports. Prompt notice, by telephone or telegraph, shall be given to the engineering section of the commission during office hours by the utility of any accident which has resulted in a fatality. Any utility under the jurisdiction of this commission shall report in writing to the commission, all accidents to employees or other persons resulting in fatalities or fractures, dislocations, or internal or other injuries, which either incapacitates the person injured for two days thereafter, or may prevent him from returning to work for two days thereafter, which are directly traceable to the transmission and distribution of water and accidents resulting in property loss in excess of \$10,000; such written report shall indicate the following information:

a. The name, address and age of the person or persons involved in the accident.

b. The time and place where the accident occurred.

c. Description of injuries including extent, severity and location on injured person(s).

d. The cause of the accident in detail.

e. The name of the individual company, corporation, operating the water system.

21.2(8) Construction programs. A utility shall file a report of major construction programs as follows:

a. A notification of all proposed important additions to plant, the construction of which was started by the utility during the preceding month. For the purpose of this rule, an important addition to plant shall mean a single project involving the expenditure of at least \$100,000 or an amount equivalent to at least ten per cent of the total water plant in service, whichever is less.

b. A notification of all important additions to plant previously reported under "a" above, the construction of which was completed to the extent that the facility was placed in operation during the preceding month.

21.2(9) Records of water service. Each utility shall compile a monthly record of the following operations within thirty days after the end of the month covered and such record shall upon and after compilation be kept available for inspection by the commission or its staff at the utility's principal office within the state of Iowa and a summary of the twelve monthly water service records for each calendar year shall be attached to and submitted with the utility's annual fiscal plant and statistical report to the commission. Such records shall contain:

a. The monthly intake of run water and the disposition of water.

b. Unscheduled or unplanned interruptions of service, [21.2(13) and 21.7(3)], occurring during the month. If there were no such interruptions, then it should be so stated.

c. The number of customer meters tested and test results tabulated.

d. Description of unusual types of operating difficulties.

e. Customer complaints as set out in 21.4(10).

21.2(10) Informing the commission. The utility shall keep the commission informed currently by written notice as to the location at which the utility keeps the various classes of records required in these rules.

21.2(11) Filing rules. A copy of the utility's current rules, if any, published or furnished by the utility for the use of engineers, architects, plumbing contractors, etc., covering meter and service installation shall be filed with the commission.

21.2(12) Filing bill forms. A copy of each type of customer bill form in current use shall be filed with the commission.

21.2(13) Prompt notice. Prompt notice by telephone or telegram shall be given the water engineering section of the commission by a utility in the event of unscheduled or unplanned interruption of service involving one hundred or more customers for a period of two hours or more duration.

21.2(14) Filing monthly, periodic and annual reports. Each utility shall file such other

monthly, periodic and annual reports as are requested by the commission. Monthly and periodic reports shall be due in the commission's office within thirty days after the end of the reporting period. All annual reports shall be filed with this commission by April 1 of each year for the preceding calendar year.

21.3(490A) General service requirements.

21.3(1) Disposition of water. All water sold by a utility shall be upon the basis of metered volume sales except that the utility may at its option provide flat rate or estimated service for the following:

a. Temporary service where the water use can be readily estimated.

b. Public and private fire protection service.

c. Water used for street sprinkling and sewer flushing, when provided for in contract between the utility and the municipality or other local government authority.

21.3(2) Register and multiplier. All meters used for metered sales shall have registration devices indicating the volume of water in either cubic feet or United States gallons. Where a constant or multiplier is necessary to determine the meter reading in cubic feet or gallons, the constant or multiplier shall be indicated upon the face of the meter.

21.3(3) Special charges. No utility shall make special charges for its installation or use of any devices for metering service to a customer, except for temporary service where the utility may charge its actual cost of installation and removal of its metering devices.

21.3(4) Utility use. Wherever practicable, consumption of water within the utility itself, or by administrative units associated with it, shall be metered.

21.3(5) Separate metering. Separate premises shall be separately metered and billed. Combined billing or submetering shall not be permitted.

21.3(6) Meter reading sheets and cards. The meter reading sheets or cards shall show:

a. Customer's name, address and rate schedule or identification of rate schedule.

b. Identifying number or description of the meter(s).

c. Meter readings and dates.

d. If the reading has been estimated.

e. Any applicable multiplier or constant, or reference thereto.

21.3(7) Meter reading interval. Reading of all meters used for determining charges to customers shall be scheduled monthly, bi-monthly, quarterly, or semiannually. An effort shall be made to read meters on corresponding days of each meter-reading period. The meter-reading date may be advanced or postponed not more than ten days without adjustment of the billing for the period. The utility may permit the customer to supply the meter readings on a form supplied by the utility, provided a utility representative reads the

meter at least once each six months and when there is a change of customer.

21.3(8) *In and out. Readings and estimates.* When a customer is connected or disconnected or the regular meter-reading date is substantially revised causing a given billing period to be longer or shorter than usual, such bills shall be prorated on a daily basis unless other provisions are made in the utility's filed rules.

The utility may leave a meter-reading form with the customer when access to meters cannot be gained. If the form is not returned in time for the billing operation, an estimated bill may be rendered. If an actual meter reading cannot be obtained, the utility may render an estimated bill without reading the meter or supplying a meter-reading form to the customer. Only in unusual cases or when approval is obtained from the customer shall more than three consecutive estimated bills be rendered.

21.3(9) *Meter test records.* Each utility shall maintain records of at least the last two tests made of any meter. The record of the meter test made at the time of the meter's retirement shall be maintained for a minimum of three years. Test records shall include the following:

- a. The date and reason for the test.
- b. The reading of the meter before making any test.
- c. The accuracy "as found" at each rate of flow.
- d. The accuracy "as left" at each rate of flow.
- e. In the event test of the meter is made by using a standard meter, the utility shall retain all data taken at the time of the test in sufficiently complete form to permit the convenient checking of the test methods and the calculations.

21.3(10) *Records of meters and associated metering devices.* Each utility shall maintain records of the following data, where applicable, for each meter and associated metering device until retirement:

- a. The complete identification—manufacturer, number, type, capacity, multiplier, constants, and pressure rating.
- b. The dates of installation and removal from service, together with the location.

21.3(11) *Temporary service.* When the utility renders temporary service to a customer, it may require that the customer bear all the costs of installing and removing the service in excess of any salvage realized.

21.3(12) *Extension plan.* The utility shall develop, with the approval of the commission, a uniform policy governing the amount of main extension that will be made free to connect a new customer. This policy shall be based generally on the investment that can prudently be made for the probable revenue. In the event that a customer is required to make a contribution to the cost of the utility's

facilities required to serve him, the utility shall account for this contribution in such manner that it will not be included in the rate base used to determine the reasonableness of the utility's rates. No utility shall make any extension except as permitted by their rules or refuse to make extension in accordance with these rules.

21.3(13) *Service connections.* In urban areas with well-defined streets, the utility shall control (supervise the installation and maintenance of) that portion of the service pipe from its main to and including the customer's meter. A curb stop shall be installed at a convenient place between the property line and the curb. All services shall include a curb stop and curb box or meter vault. In installations where meters are installed in meter vaults incorporating a built-in valve, and are installed between property line and curb, no separate curb stop and curb box is required.

21.3(14) *Location of meters.* Meters may be installed outside or inside as mutually agreed upon by the customer and utility.

a. *Outside.* Meters installed out-of-doors shall be readily accessible for maintenance and reading and so far as practicable the location should be mutually acceptable to the customer and the utility. The meter shall be installed so as to be unaffected by climatic conditions and reasonably secure from injury.

b. *Inside.* Meters installed inside the customer's building shall be located as near as possible to the point where the service pipe enters the building and at a point reasonably secure from injury and readily accessible for reading and testing. In cases of multiple buildings, such as two-family dwellings or apartment buildings, the meter(s) shall be located within the premises served or in a common location accessible to the customers and the utility.

21.4(490A) Customer relations.

21.4(1) *Customer information.* Each utility shall:

a. Post a notice in a conspicuous place in each office of the utility where applications for service are received, informing the public that copies of the rate schedules and rules relating to the service of the utility, as filed with the commission, are available for inspection.

b. Upon request, inform its customers as to the method of reading meters, computing the charges billed and assist in choosing the appropriate rate.

c. Provide notification of changes in rates or rate classifications as set out in Rules of Practice and Procedure Before the Iowa State Commerce Commission on Public Utility Matters.

d. Furnish such additional information as the customer may reasonably request.

e. Maintain up-to-date maps, plans, or records of its entire transmission and distribution systems, with such other information as may be necessary to enable the utility to ad-

wise prospective customers, and others entitled to the information, as to the facilities available for serving any locality.

f. Make certain that employees responsible for the receiving of customer telephone calls and customer office visits shall be properly qualified and instructed in the screening and prompt handling of complaints to assure prompt reference of the complaint to the person or department capable of effective handling of the matter complained of and to obviate the necessity of the customer's preliminary repetition of the entire complaint to employees lacking in ability and authority to take appropriate action.

g. Each utility shall at any time, on request, give its customers such information and assistance as is reasonably possible in order that customers may secure safe and efficient service. Each utility shall inform each customer of any change made or proposed to be made in any condition as to its service as would affect the efficiency of the service or the operation of the appliances or equipment which may be in use by said customer.

21.4(2) Customer deposits. Each utility may require from any customer or prospective customer a deposit intended to guarantee payment of bills for service.

a. Amount of deposit. Such deposit shall not be less than five dollars nor more in amount than the maximum estimated charge for service for two consecutive billing periods or ninety days, whichever is less, or, in the case of a customer whose bills are payable in advance, it shall not exceed an estimated sixty days bill for such customer, or as may reasonably be required by the utility in cases involving service for short periods or special occasions.

b. Interest on deposit. Simple interest on deposits at the rate of at least five per cent per annum shall be paid by the utility to each customer required to make such a deposit for the time held by the utility. Interest shall be paid from the date of deposit to the date of refund or the date upon which the customer's account becomes delinquent, whichever is earlier, unless such period be less than six months. Payment of the interest to the customer may be made annually or at the time the deposit is returned. The deposit shall cease to draw interest on the date it is returned, on the date upon which the customer's account becomes delinquent, or on the date notice is sent to the customer's last known address that the deposit is no longer required.

c. Deposit record. Each utility shall keep records to show: (1) The name and address of each depositor. (2) The amount and date of the deposit. (3) Each transaction concerning the deposit.

d. Deposit receipt. Each utility shall issue a receipt of deposit to each customer from whom a deposit is received, and shall provide means whereby a depositor may establish his claim if his receipt is lost.

e. Deposit refund. The deposit may be refunded upon request of the customer after twelve consecutive months of prompt payment, and, without such request, shall be refunded by the utility after thirty-six months of prompt payment unless the utility has evidence to indicate that the deposit is necessary to insure payment of bills for service. The deposit shall be refunded when the customer has paid the final billing upon termination of his service.

f. Unclaimed deposits. A record of each unclaimed deposit must be maintained for at least three years, during which time the utility shall make a reasonable effort to return the deposit. After three years, the unclaimed deposits, together with accrued interest, shall be credited to an appropriate account as established by the commission's accounting rules.

g. New or additional deposit. A new or additional deposit may be required upon reasonable written notice of the need for such a requirement in any case where a deposit has been refunded or is found to be inadequate to cover two months bills as above provided for, or where a customer's credit standing is not satisfactory to the utility. The service of any customer who fails to comply with these requirements may be disconnected upon five days' written notice.

21.4(3) Customer bill forms. The utility shall bill each customer as promptly as possible following the reading of his meter. Each bill, including the customer's receipt, shall show:

a. The reading of the meter at the beginning and at the end of the period for which the bill is rendered.

b. The dates on which the meter was read at the beginning and end of the billing period.

c. The number and kind of units metered.

d. The applicable rate schedule, or identification of the applicable rate schedule.

e. The gross and net amount of the bill.

f. The discount for prompt payment or penalty for delayed payment and the latest date on which it may be paid without loss of discount or incurring of penalty.

g. A distinct marking to identify an estimated bill.

h. Prorating of bills for a billing period which is longer or shorter than usually allowed on a daily basis unless other provisions are filed by the utility in its filed rules.

i. Credits due a customer because of meter inaccuracies, errors in billing, or misapplication of rates each shown separately and identified. The original billing rendered because of meter inaccuracy, or errors in billing, shall be separated from the regular bill and the charges explained in detail. Subsequent to the first billing, the amount can be shown as a separate item on the regular bill.

21.4(4) Customer records. The utility shall retain customer billing records for the

length of time necessary to permit the utility to comply with 21.4(5), but not less than three years.

21.4(5) Adjustment of bills. Bills which are incorrect due to meter or billing errors are to be adjusted as follows:

a. Fast meters. Whenever a meter in service is tested and found to have overregistered more than two percent, the utility shall adjust the customer's bill for the excess amount paid. If the time at which the error first developed or occurred can be definitely determined, the estimated amount of overcharge is to be based thereon. If the time at which the error first developed or occurred cannot be definitely determined, it shall be assumed that the overregistration existed for a period equal to one-half of the time since the meter was last tested, or July 4, 1963, whichever is later, and the bills for service shall be recalculated for that period. If the recalculated bills indicate that more than three dollars is due an existing customer or five dollars is due a person no longer a customer of the utility, the full amount of the calculated difference between the amount paid and the recalculated amount shall be refunded to the customer. The refund to an existing customer may be in lump sum cash or as lump sum credit on a bill. If a refund is due a person no longer a customer of the utility, a notice shall be mailed to the last known address, and the utility shall upon request made within three months thereafter refund the amount due.

b. Nonregistering meters. Whenever a meter in service is found not to register, the utility may render an estimated bill. The utility shall estimate the charge for the water used by averaging the amount registered over a similar period preceding or subsequent to the period of nonregistration or for corresponding period in previous years, adjusting for any changes in the customer's usage. When it is found that the error in a meter is due to some cause, the date of which can be fixed, the overcharge or the undercharge shall be computed back to but not beyond such date.

c. Slow meters. Whenever a meter is found to be more than two percent slow, the utility may bill the customer for the amount the test indicates he has been undercharged for the period of inaccuracy, which period shall not exceed the last six months the meter was in service unless otherwise ordered by the commission. No back billing will be allowed if the customer has called to the company's attention his doubts as to the meter's accuracy and the company has failed within a reasonable time to check it.

d. Calculation of billing adjustments. Billing adjustments due to fast and slow meters shall be calculated on the basis that the meter should be one hundred percent accurate. For the purpose of billing adjustment, the meter error shall be one-half of the algebraic sum of the error at maximum test flow plus the error at intermediate test flow.

e. Overcharge adjustment. When a customer has been overcharged as a result of incorrect reading of the meter, incorrect application of the rate schedule, incorrect connection of the meter, or other similar reasons, the amount of the overcharge shall be adjusted, refunded, or credited to the customer.

f. Undercharge adjustment. When a customer has been undercharged as a result of incorrect reading of the meter, incorrect application of the rate schedule, incorrect connection of the meter, or other similar reasons, the amount of the undercharge may be billed to the customer.

g. Credits and explanations. Credits due a customer because of meter inaccuracies, errors in billing, or misapplication of rates shall be separately identified as set out in 21.4(3) "i".

21.4(6) Reasons for denying and disconnecting service. Service may be refused or discontinued only for the reasons listed below. Unless otherwise stated, the customer shall be permitted at least five days, excluding Sundays and legal holidays, following mailing in which to take necessary action before service is discontinued.

a. Without notice in the event of a condition determined by the utility to be unreasonably hazardous.

b. Without notice in the event of customer use of equipment in such a manner as to adversely affect the utility's equipment or the utility's service to others.

c. Without notice when the utility has discovered clear and convincing evidence that by fraudulent means a customer has obtained unauthorized water service or has diverted the water service for unauthorized use or has obtained water service without same being properly registered upon the utility's meters.

d. In the event of tampering with the equipment furnished and owned by the utility.

e. For violation of or noncompliance with the rules which the utility has filed with the commission.

f. For failure of the customer to fulfill his contractual obligations for service or facilities subject to regulation by the commission.

g. For failure of the customer to permit the utility reasonable access to its equipment.

h. For nonpayment of bill provided that the utility has made a reasonable attempt to effect collection and has given the customer written notice that he has at least five days, excluding Sundays and legal holidays, in which to make settlement on his account or make a deposit in accordance with 21.4(2) or have his service disconnected.

i. For failure of the customer to furnish such service equipment, permits, certificates, or rights of way, as shall have been specified by the utility as a condition to obtaining service, or in the event such equipment or permissions are withdrawn or terminated.

j. No service shall be disconnected on the day prior to a weekend or holiday except

as provided in paragraphs "a", "b" and "c" of this section.

k. When a prospective customer is refused service under the provisions of this section, the utility shall notify him promptly of the reason for the refusal to serve and of his right to appeal the utility's decision to the commission.

21.4(7) Reconnection. In all cases of discontinuance of service as herein defined, where the cause for discontinuance has been corrected, and all rules of the utility on file with the commission have been complied with, the utility shall promptly restore service to the customer.

21.4(8) Reconnection charge. Where service has been discontinued in accordance with this section, the utility may make a reasonable charge for reconnection of service. This charge, however, shall be applied uniformly and shall be incorporated in the rules of the utility.

21.4(9) Insufficient reasons for denying service. The following shall not constitute sufficient cause for refusal of service to a present or prospective customer:

- a. Nonpayment for service by a previous occupant of the premises to be served.
- b. Failure to pay for merchandise or special services purchased from the utility.
- c. Failure to pay the bill of another customer as guarantor thereof.
- d. Failure to pay for a different type or class of public utility service.
- e. Failure to pay a back bill rendered in accordance with 21.4(5) "c". (Slow meters.)
- f. Failure to pay adjusted bills based on the undercharges set forth in 21.4(5) "f".

21.4(10) Customer complaints. For the purpose of this section, the word "complaint" shall mean objection to the charge, facilities, or quality of service of a utility concerning which an investigation is necessary.

a. Each utility shall investigate promptly and thoroughly and keep a record of written complaints and all other reasonable complaints received by it from its customers in regard to safety, service, or rates, and the operation of its system as will enable it to review and analyze its procedures and actions. The record shall show the name and address of the complainant, the date and nature of the complaint, and its disposition and the date thereof.

b. All complaints caused by a major service interruption shall be summarized in a single report.

c. A record of the original complaint shall be kept for a period of three years subsequent to the final settlement of the complaint.

21.4(11) Access to property. The utility shall have access at all reasonable hours to meters, service connections, and other property owned by it which may be located on customer's premises for purposes of installa-

tion, maintenance, operation, or removal of its property at the time service is to be terminated. Any employee of the utility whose duties require him to enter the customer's premises shall wear a distinguishing uniform or other insignia, identifying him as an employee of the utility, or carry on his person a badge or other identification which will identify him as an employee of the utility, the same to be shown by him upon request.

21.5(490A) Engineering practice.

21.5(1) Requirement of good engineering practice. The design and construction of the utility's water plant shall conform to good standard engineering practice. It shall be designed and operated so as to provide reasonably adequate and safe service to its consumers and shall conform to the requirements of the state department of health, and local boards of health, with reference to sanitation and potability of water.

21.5(2) Construction standards. Standards for construction and maintenance of mains and services are as follows:

a. *Depth of mains.* Water mains shall be placed at such a depth below ground level, or otherwise protected, as will prevent freezing during the coldest weather experienced in the community in which laid, and to prevent damage by traffic.

b. *Dead ends.* Insofar as practicable, the utility shall design its distribution system so as to avoid dead ends in its mains. Where dead ends are necessary, the utility shall provide hydrants or valves for the purpose of flushing the mains. Mains with dead ends shall be flushed as often as necessary to maintain the quality of the water but in any event they shall be flushed at least once each six months.

c. *Segmentation of system.* Valves or stopcocks shall be provided at reasonable intervals in the mains so that repairs may be effected by the utility with interruptions to the service of a minimum number of customers.

d. *Disinfection of water mains.* All new mains shall be thoroughly disinfected before being connected to the system. The method of disinfecting shall be in compliance with state department of health acceptable practice standards.

e. *Grid systems.* Wherever feasible, the distribution system shall be laid out in a grid so that in case of breaks or repairs the interruptions of service to the customers shall be at a minimum.

f. *Size of service pipe.* The size, design, and material and installation of the service pipe shall conform to such reasonable requirements of the utility as may be incorporated in its rules and regulations, provided, however, that the minimum size of the pipe shall not be less than three-fourths inch nominal size except under unusual circumstances which shall be clearly defined.

g. Depth of service pipe. All service pipes shall be laid at such a depth as will prevent freezing, except where services are not intended for use during freezing weather, and are actually drained during such periods.

h. Inspection of service pipe. In the installation of a service pipe the customer shall leave the trench open and pipe uncovered until it is inspected by the utility or other duly authorized agency and shown to be at proper depth, free from any tee, branch connection, irregularity or defect. The utility or other duly authorized agency shall expedite the inspection so that the trench may be closed as soon as practical.

i. Unsatisfactory foundation. Whenever normal excavation discloses unsatisfactory foundation one or more of the following corrective measures shall be adopted:

- (1) Excavate to good bearing soil and backfill to pipe grade with suitable material well tamped to provide adequate support.
- (2) Support with a concrete slab.
- (3) Support with piling.

j. Pipe on bridges. Pipe on a highway bridge shall be located so as to reduce hazard to a minimum and be protected from freezing.

k. Pipes laid in trench with other facilities. To secure compliance with the requirements of these rules by others doing underground construction work, the utility should arrange with the other agencies having highway subsurface rights for adequate notification and inspection procedure.

(1) Water services may be laid in the same trench with other underground utilities with the exception of sewer pipes, provided such service pipes are laid at least twelve inches in a horizontal plane from other subsurface facilities. Where water service pipes must be run or laid in the same trench with building sewer or drainage piping, the provisions of the Iowa state plumbing code shall apply.

(2) All water mains shall be laid clear of all other underground structures and should not be laid in the same trench with other underground utilities in order to minimize the possibility of water leakage by reason of any movement of such structures or of the mains.

(3) At crossings of mains and services with other underground structures, clearances shall be not less than twelve inches.

l. Pressure testing. Pipe laid shall be tested and made tight before being placed in service.

m. Backfill. The ditch underneath, around and over the pipe shall be backfilled with good material thoroughly compacted to secure a firm support. To disclose any settlement of the backfill which may need correcting, newly filled ditches shall be reinspected at intervals for sufficient period of time subsequent to completion of backfilling operations.

n. Service connection. Service connections may be tapped into cast iron mains if the diameter of the corporation stop does not

exceed one-sixth of the diameter of the main. Service connections may be tapped into asbestos cement pipe if the diameter of the corporation stop does not exceed the permissible sizes listed in the following table:

Pipe Size	Pipe Class	Corporation Stop
3" thru 6"	100 and 150	¾"
3" and 4"	200	¾"
6"	200	1"
8" thru 16"	100, 150 and 200	1"

Otherwise, and in mains other than cast iron or asbestos cement, a saddle, sleeve, or welded connection may be used or a tee cut into the line. The service connection at the main or the run of service pipe shall allow for a reasonable amount of flexibility to prevent fracture or leaks at the connection with the main.

21.5(3) Inspection of water plant. The utility's water transmission and distribution facilities shall be designed, constructed and maintained as required to perform the water delivery burden placed upon them. Each utility shall be capable of emergency repair work on a scale consistent with its scope of operation and with the physical conditions of its transmission and distribution facilities.

In appraising the reliability of the utility's transmission and distribution system, the commission will consider the condition of the physical property and the size, training, supervision, availability, equipment and mobility of the maintenance forces all as principal factors.

Each utility must adopt a program of inspection of its water plant in order to determine the necessity for replacement and repair. The frequency of the various inspections shall be based on the utility's experience and accepted good practice. Each utility shall keep sufficient records to give evidence of compliance with its inspection program.

21.6(490A) Meter testing.

21.6(1) Meter test facilities and equipment. Each utility furnishing metered water service shall provide the necessary standard facilities, instruments and other equipment for testing its meters in compliance with these rules. Any utility may be exempted from this requirement by the commission provided that satisfactory arrangements are made for test of its meters by another utility or approved agency equipped to test meters in compliance with these rules.

a. Meter shop. The utility's meter test shop shall insofar as practicable simulate the actual service conditions of temperature, inlet pressure, and outlet pressure. It shall be provided with the necessary fittings, including a quick acting valve for controlling the starting and stopping of the test and a device for regulating the flow of water through the meter under test within the requirement of these rules.

b. Test equipment and procedures. The over-all accuracy of the test equipment and test procedures shall be sufficient to enable test

of service meters within the requirements of these rules. In any event, the inherent over-all accuracy of the equipment shall permit test with an over-all error of not to exceed three-tenths of one percent.

21.6(2) Test measurement standards. Measuring devices for test of meter may consist of a calibrated tank for volumetric measurement or tank mounted upon scales for weight measurement. If a volumetric standard is used, it shall be accompanied by a certificate of accuracy from any standard laboratory as may be approved by the commission. If a weight standard is used, the scales shall be tested and calibrated periodically by such approved laboratory and a record maintained of the results of the test.

a. Basic standards. When basic standards are used for meter test, they shall be of a capacity sufficient to insure accurate determination of accuracy and shall be subject to the approval of the commission.

b. Transfer provers. By special permission of the commission, a standard meter may be provided and used by a utility for the purpose of testing meters in place. This standard meter shall be tested and calibrated periodically to insure its accuracy within the limits required by these rules. In any event, such test shall be made at least once every sixty days while the standard meter is in use and a record of such tests shall be kept by the utility.

21.6(3) Accuracy requirements. All meters used for measuring quantity of water delivered to a customer shall be in good mechanical condition and shall be adequate in size and design for the type of service which they measure and shall be accurate to the following standards.

a. Test flow limits. For determination of minimum test flow and normal test flow limits, the commission will use as a guide the appropriate standard specifications of the American Water Works Association for the various types of meters. These test flows for positive displacement type cold water meters are as follows:

Nominal Meter Size	FLOW IN G.P.M.		
	Mini- mum	Inter- mediate	Maxi- mum
5/8	0.25	2	15
3/4	0.50	3	25
1	0.75	4	40
1½	1.50	8	80
2	2.00	15	120
3	4.00	20	250
4	7.00	40	350
6	12.00	60	700

Displacement meters shall be tested at each of the rates of flow stated above for the various size meters.

b. Accuracy limits. A meter shall not be placed in service if it registers less than ninety-five percent of the water passed through it at the minimum test flow or overregisters or underregisters more than one and one-half per-

cent at the intermediate or maximum limit except that a repaired meter shall not overregister or underregister more than one and one-half percent of the intermediate and maximum flows and shall register not less than the following appropriate percentage of the water passed through it at the minimum test flow:

If manufactured on or after January 1, 1947	90%
If manufactured prior to Jan- uary 1, 1947	85%

21.6(4) As found tests. All meters tested in accordance with these rules for periodic or complaint tests shall be tested in the condition as found in the customer's service prior to any alteration or adjustment in order to determine the average meter error. Tests shall be made at intermediate and maximum rates of flow and the meter error shall be the algebraic average of the errors of the two tests.

21.6(5) Sealing of meters. Upon completion of adjustment and test of any water meter under the provisions of these rules, the utility shall affix thereto a suitable register seal in such a manner that adjustment or registration of the meter cannot be changed without breaking the seal.

21.6(6) Record of test. A complete record of all meter tests and adjustments and data sufficient to allow checking of test calculations shall be recorded. Such record shall include:

- a. Identifying number of the meter.
- b. Type and capacity of the meter.
- c. Constant of the meter.
- d. Date and kind of tests made.
- e. Reading of the meter before making any test.
- f. The error as found at each test.
- g. If readjusted, the percentage of registration as left after each test.

The complete record of tests of each meter shall be maintained for at least two continuous periodic tests and in no case for less than two years.

21.6(7) Report of meter tests. Each utility shall furnish to the commission at intervals not exceeding one year a report of the summary of all meter tests made. This report shall be in such detail as may be prescribed by the commission from time to time.

21.6(8) Initial test and storage of meters. Every water meter shall be tested as required by these rules prior to its installation either by the manufacturer, the utility, or any approved organization equipped for meter testing. Meters in storage shall be stored in accordance with the manufacturers' recommendations, and unless so stored, shall be tested immediately before installation.

21.6(9) Repaired or tested meters. All water meters removed from service for repair or testing in accordance with these rules shall be restored to the prescribed limits of accuracy

as required by these rules before again being placed in service.

21.6(10) Periodic and routine tests. Each utility shall adopt schedules for periodic and routine tests and repair of its meters as approved by the commission.

21.6(11) Request tests. Each utility shall make a test of any water meter upon written request of any customer provided such request is not made more frequently than once each eighteen months. The customer shall be given the opportunity of being present at such request tests.

21.6(12) Referee tests. The commission will make or cause to be made tests of meters as follows:

a. Application. Upon written application to the commission by a customer or a utility, a test will be made of the customer's meter as soon as practicable under the observation of a representative of the commission.

b. Guarantee. The application transmitted by certified or registered mail shall be accompanied by a certified check or money order made payable to the utility in the amount indicated below:

(1) Capacity of 80 gallons per minute or less	\$ 4.00
(2) Capacity over 80 gallons, up to 120 gallons per minute	\$ 6.00
(3) Capacity of over 120 gallons per minute	\$10.00

c. Conduct of test. On receipt of such request from a customer, the commission will forward the deposit to the utility and will notify the utility of the requirement for the test and the utility shall not knowingly remove or adjust the meter until instructed by the commission. The utility shall furnish all instruments, load devices and other facilities necessary for the test and shall perform the test in the presence and under the observation of the commission's representative and shall furnish verification of the accuracy of test instruments used.

d. Test results. If upon test the meter is found to overregister to an extent requiring a refund under the provisions of 21.4(5) "a", the amount paid to the utility for the test shall be returned to the customer by the utility.

e. Notification. The utility shall notify the customer in advance of the date and time of the referee test so the customer, or his representative, may be present when his meter is tested.

f. Commission report. The commission will make a written report of the results of the test to the customer and to the utility.

21.6(13) Installation of meters. Each water utility shall adopt a standard method of meter installation. Such methods shall be set out with a written description or drawing to the extent necessary to a clear understanding of the requirements. Copies of approved standard methods shall be made available upon request to prospective customers, contractors

or others engaged in the business of placing pipe for water utilization. All meters shall be set in place by the utility.

21.6(14) Registration of meters. All meters used for metered sales shall have registration devices indicating the volume of water in either cubic feet or United States gallons. Where a constant or multiplier is necessary to determine the meter reading in cubic feet or gallons, the constant or multiplier shall be indicated upon the face of the meter, and on the meter reading sheet or card.

21.7(490A) Standards of quality of service.

21.7(1) Quality of water. Any utility furnishing water service for human consumption or for domestic uses shall provide water that is wholesome, potable, free from objectionable odors and taste, and in no way harmful or dangerous to health and shall conform to all legal requirements of the state department of health for construction and operation of its water system as pertains to sanitation and potability of the water.

a. In absence of comparable requirements of the state department of health the following rules shall apply and the water supplied by any utility shall be:

(1) Obtained from a source free from pollution and adequately protected from pollution, or

(2) Adequately protected by artificial treatment.

(3) Reasonably free from objectionable color, turbidity, taste, and odor.

(4) From a source reasonably adequate to provide a continuous supply of water.

(5) Of such quality at all times as to meet the standards of purity for drinking water as set out in Public Health Service Drinking Water Standards, Revised 1962, PHS Publication No. 956 as modified by Iowa state department of health regulations governing drinking water in Iowa.

b. Operation of supply system. The utility shall operate and maintain its supply system in such manner as will guarantee that:

(1) The water supply system, including wells, reservoirs, pumping equipment, treatment works, mains and service pipes shall be free from sanitary defects.

(2) No physical connection between the distribution system of a public potable water supply and that of any other water supply is permitted, unless such other water supply maintains a safe sanitary quality in accordance with these rules and the interconnections of both supplies is approved by the state department of health.

(3) The growth of algae in the water at the source of supply, in reservoirs or other basins, and in the water mains, is controlled by proper treatment.

(4) Where water supplies are obtained from driven or drilled wells, the tightness of well casings and protection at the surface of the ground will prevent the infiltration of

water other than that from the strata tapped by such wells.

c. *Laboratory testing.* The quality of water being furnished by the utility shall be determined by laboratory tests.

(1) Each utility shall have representative samples of the water supplied by it examined by the state or local department of health or, by a state department of health approved laboratory employing a competent chemist and bacteriologist, skilled in the sanitary examination of water, at intervals sufficient to insure a safe water supply.

(2) In the event that the above-prescribed test shows that the water furnished by the utility is contaminated or otherwise unsafe for human consumption, the utility shall forward a report of such test to the commission or other state agency having correctional jurisdiction without delay, and shall take immediate steps to correct the condition.

21.7(2) *Pressures.* Under normal condition of use of water the pressure (pound per square inch gauge) at a customer's service connection shall be not less than twenty-five PSIG and not more than one hundred twenty-five PSIG.

a. Pressure outside the limits specified will not be considered a violation when the variations:

- (1) Arise from the action of the elements.
- (2) Are infrequent fluctuations not exceeding five minutes duration.
- (3) Arise from service interruptions.
- (4) Are from causes beyond the control of the utility.

b. Each utility shall adopt and maintain a standard pressure in its distribution system at locations to be designated as the point or points of "standard pressure".

c. At regular intervals, each utility shall make a survey of pressures in its distribution system of sufficient magnitude to indicate the quality of service being rendered at representative points on its system. Such surveys should be made during periods of high usage at or near the maximum usage during the year. The pressure charts for these surveys shall show the date and time of beginning and end of the test and the location at which the test was made. Records of these pressure surveys shall be maintained at the utility's principal office in the state and shall be made available to the commission upon request.

21.7(3) *Interruption of supply.* Prompt notice by telephone or telegraph shall be given to the commission by each utility of all interruptions to or major impairment of the supply for periods of a duration of one hour or more occurring on production works, storage works, transmission mains, or distribution mains except those occurring in the course of routine operations. The same notice shall be given in case of accident or damage to portions of the plant which might lead to interruptions of service.

a. Each utility shall make all reasonable efforts to prevent interruptions of

service and when such emergency interruptions occur shall endeavor to re-establish service with the shortest possible delay consistent with the safety to its customers and the general public. Where an emergency interruption affects fire protection service, the utility shall immediately notify the fire chief or other responsible local official.

b. Whenever any utility finds it necessary to schedule an interruption to its service, it shall make all reasonable efforts to notify all customers to be affected by the interruption, stating the time and anticipated duration of the interruption. Whenever possible, scheduled interruptions shall be at such hours as will provide least inconvenience to the customer.

c. Every utility shall maintain records of interruptions for a period of at least five years.

21.7(4) *Shortage of supply.* The utility shall exercise reasonable diligence to furnish a continuous and adequate supply of water to its customers and to avoid any shortage or interruption of delivery thereof.

a. If a utility finds that it is necessary to restrict the use of water it shall notify its customers, and give the commission written notice, before such restriction becomes effective. Such notifications shall specify:

- (1) The reason for the restriction.
- (2) The nature and extent of the restriction.
- (3) The date such restriction is to go into effect.
- (4) The probable date of termination of such restriction.

b. During times of threatened or actual water shortage the utility shall equitably apportion its available water supply among its customers with due regard to public health and safety.

..... Tariffs
(Name of Company) (type)
Filed with I.S.C.C.

..... Sheet No.
Canceling Sheet No.
RATE DESIGNATION
CLASS OF SERVICE
EXHIBIT "A"
Authorized By
(Date)
Effective
(Date)

Supersedes Rate No.
These rules are intended to implement sections 490A.2 and 490A.8 of the Code.
[Filed June 11, 1968]

CHAPTER 22
TELEPHONE UTILITIES

22.1(490A) General information.

22.1(1) *Application of rules.* The rules shall apply to any telephone utility operating within the state of Iowa subject to chapter 490A of the Code, and shall supersede all conflicting rules of any telephone utility which were in force and effect prior to the adoption

of their superseding rules. These rules are intended to promote safe and adequate service to the public, to provide standards for uniform and reasonable practices by utilities, and to establish a basis for determining the reasonableness of such demands as may be made by the public upon the utilities.

22.1(2) Waiver and modification. If unreasonable hardship to a utility or to a customer results from the application of any rule herein prescribed, application may be made to the commission for the modification of the rule or for temporary or permanent exemption from its requirements.

The adoption of these rules shall in no way preclude the commission from altering or amending them, pursuant to statute, or from making such modifications with respect to their application as may be found necessary to meet exceptional conditions.

22.1(3) Definitions. For the administration and interpretation of these rules, the following words and terms shall have the meaning indicated below:

a. "Average busy-season, busy-hour traffic" — The average traffic volume for the busy-season, busy-hours.

b. "Base rate area" — The developed portion or portions within each exchange service area as set forth in the telephone utility's tariffs, maps or descriptions. Main station service within this area is furnished at uniform rates without mileage charges. (See also "Rate Zone")

c. "Busy-hour" — The two consecutive half-hours during which the greatest volume of traffic is handled in the office.

d. "Busy-season" — That period of the year during which the greatest volume of traffic is handled in the office.

e. "Calls"—Customers' telephone messages attempted.

f. "Central office" — A switching unit, in a telephone system which provides service to the general public, having the necessary equipment and operating arrangements for terminating and interconnecting subscriber lines and trunks or trunks only. There may be more than one central office in a building.

g. "Channel" — An electrical path suitable for the transmission of communications.

h. "Class of service" — The various categories of service generally available to customers, such as business or residence.

i. "Commission" means the Iowa state commerce commission.

j. "Customer or subscriber" — Any person, firm, partnership, corporation, municipality, co-operative organization, governmental agency, etc., provided with telephone service by any telephone utility.

k. "Customer trouble report" — Any call or written statement from a subscriber or user of telephone service relating to a physical defect or to difficulty or dissatisfaction with the operation of telephone facilities. Each call or written statement received shall be considered a separate report, even though it may

duplicate a previous report or merely involve an inquiry concerning progress on a previous report. Also, a separate report shall be counted for each telephone or PBX switchboard position reported in trouble when several items are reported by one customer at the same time, unless the group of troubles so reported is clearly related to a common cause.

l. "Exchange" — A unit established by a telephone utility for the administration of telephone service in a specified area which usually embraces a city, town, or village and its environs. It consists of one or more central offices together with associated plant used in furnishing communication service in that area.

m. "Exchange service" means telephone service furnished by means of exchange plant and facilities.

n. "Exchange service area" or "exchange area" means the general area in which the telephone utility holds itself out to furnish exchange telephone service.

o. "Exchange station" means communication equipment with an individual exchange or extension number located within an exchange service area which may be called by dial or otherwise from any other exchange station.

p. "Extended area service" means telephone service, furnished at flat rates, between subscribers' telephone stations located within an exchange area and all of the subscribers of one or more additional exchange areas.

q. "Flat rate service" means service furnished at a fixed monthly or periodic charge.

r. "Foreign exchange service" means exchange service furnished a subscriber from an exchange other than the exchange regularly serving the area in which the subscriber is located.

s. "Grade of service"—The number of parties served on a telephone line such as one-party, two-party, four-party, etc.

t. "Held order for regrade" means an application for regrade of service not filled within thirty days of the date which the prospective customer desires service.

u. "Held order for service" means an application for establishment of service not filled within thirty days of the date which the prospective customer desires service.

v. "Local service" means telephone service furnished between subscriber stations located within an exchange area.

w. "Main station"—The primary or principal station directly connected by means of an individual line or party line circuit with a central office.

x. "Message"—A completed customer telephone call.

y. "Message rate service" means service for which the subscriber charges are based on message units depending in part upon the number of outgoing messages placed by the subscriber to stations receiving service from the same local or extended service area.

z. "Multiparty service" means service provided on a channel designed for the connection of more than four main stations with the central office.

aa. "Outside plant" — The telephone equipment and facilities installed on, along, or under streets, alleys, highways, and private rights of way between customer locations, central offices, or the central office and customer location.

ab. "Percentage of fill" means the ratio of circuits and equipment in use to the total available.

ac. "Premises"—The space occupied in a single exchange by a customer in a building or in adjoining buildings not separated by a public thoroughfare.

ad. "Rate zone" means an area other than base rate area within an exchange service area where service generally is furnished at uniform rates without mileage charges.

ae. "Rural service" means service in an exchange area outside of a base rate area or generally outside a special rate area, as defined herein, furnished without mileage charge.

af. "Service line" — Those facilities owned and maintained by a customer or group of customers, which lines are connected with the facilities of another telephone utility for communication service.

ag. "Special rate area" means an area within an exchange where service generally is furnished at uniform rates. Usually this comprises a developed area outside of the base rate area which is also known as a "locality rate area" and separated by some distance from the base rate area.

ah. "Subscriber line" — The wires or channels used to connect the telephone equipment at the subscriber's premises with the central office.

ai. "Switching service"—Switching performed for service lines.

aj. "Tariff"—The entire body of rates, tolls, rentals, charges, classifications, and rules, adopted and filed with the commission by a public utility providing service to the public.

ak. "Telephone station" means the telephone instrument installed for the use of a customer or subscriber.

al. "Telephone utility" — Any person, partnership, business association, or corporation, domestic or foreign, owning or operating any facilities for furnishing communications service to the public for compensation.

am. "Toll connecting trunks"—A general classification of trunks carrying toll traffic and ordinarily extending between a local office and a toll office.

an. "Toll message" is a message made between different exchange areas for which a charge is made.

ao. "Toll rate" means the tariff charge prescribed for toll messages, usually based upon the duration of the message and the distance between the exchanges.

ap. "Toll station"—A telephone connected to a toll line or directly to a toll board.

aq. "Toll station service" means telephone service rendered from a toll station.

ar. "Traffic" means telephone call volume, based on number and duration of messages.

as. "Traffic grade of service" means the percent of customer call attempts which do not encounter an all-trunks-busy condition during the average busy-season, busy-hour.

at. "Wide area service" means service beyond the local or extended area provided at a flat monthly rate or on a basis differing from customary message toll rates.

22.1(4) *Abbreviations.*

AMA—Automatic Message Accounting
 ANC—All Number Calling
 ANI—Automatic Number Identification
 CAMA—Centralized Automatic Message Accounting
 CATV—Community Antenna Television
 CB—Common Battery
 CDO—Community Dial Office
 COE—Central Office Equipment
 DDD—Direct Distance Dialing
 D-TPL—Dial-Terminal Per Line
 D-TPS—Dial-Terminal Per Station
 EAS—Extended Area Service
 ESS—Electronic Switching System
 IMTS—Improved Mobile Telephone Service
 INWATS—Inward Wide Area Telephone Service
 MG—Magneto
 MMM—Message Minute Miles
 PABX—Private Automatic Branch Exchange
 PBX—Private Branch Exchange
 SLU—Subscriber Line Usage
 TSP—Traffic Service Position
 TSPS—Traffic Service Position System
 TWX—Teletypewriter Exchange Service
 WATS—Outward Wide Area Telephone Service

22.1(5) *Switching service.* Effective with the adoption of these rules, telephone utilities shall not provide switching service to additional lines which do not meet the technical criteria of these rules. Also, effective with the adoption of these rules, each telephone utility shall eliminate nonconforming switching service according to one of the following provisions:

a. By conversion to dial or other adequate service.

b. By changing all lines not upgraded to dial or other adequate service to company-owned stations within a period of five years.

22.1(6) *Basic utility obligations.* Each telephone utility shall provide telephone service to the public in its service area in accordance with its rules and tariffs on file with the commission. Such service shall normally meet or exceed the standards set forth in these regulations governing service supplied by "Telephone Utilities."

22.2(490A) Records and reports.

22.2(1) Evaluation of records. Each telephone utility has the obligation to continually study and evaluate its records and reports to insure that any irregularities in service that may cause customer dissatisfaction or complaint are corrected expeditiously and that all phases of construction, equipment maintenance, or operation are satisfactory.

22.2(2) Retention of records. Unless otherwise specified herein, all records required by these rules shall be preserved for the period of time specified in "Part 42—FCC Rules and Regulations." The latter shall be the unit of Volume X of the rules and regulations of the federal communications commission officially designated as "Part 42—Preservation of Records of Communication Common Carriers" as adopted by the federal communications commission in Docket 13080 and published in the Federal Register on October 4, 1960, and as amended by Transmittal Sheet No. X-9 to Volume X of Rules and Regulations, January, 1961 Edition, effective date September 1, 1965.

Where a telephone utility is operated in conjunction with any other enterprise, suitable records shall be maintained so that the results of the telephone operation may be determined upon reasonable notice and request by the commission.

22.2(3) Location of records. All records required by these rules or necessary for the administration thereof, shall be kept within this state, unless otherwise authorized by the commission, or shall be made available to the commission or its authorized representatives at all reasonable hours.

22.2(4) Tariffs to be filed with the commission. The utility shall file its tariff with the commission, and shall maintain such tariff filing in a current status. A copy of the same tariff shall also be on file in all business offices of the telephone utility and shall be available for inspection by the public.

The schedules of rates of rate-regulated utilities and rules of all utilities shall be filed with the commission and shall be classified, designated, arranged and submitted so as to conform to the requirements of current tariff or rate schedule circulars and special instructions which have been or may from time to time be issued by the commission. Provisions of the schedules shall be definite and so stated as to minimize ambiguity or the possibility of misinterpretation. The form, identification, and content of tariffs shall be in accordance with these rules.

Utilities which are not subject to the rate regulation provided for by chapter 490A of the Code, shall not be required to file schedules of rates, or contracts primarily concerned with a rate schedule, with the commission but nothing contained in these rules shall be deemed to relieve any utility of the requirement of furnishing any of these same schedules or contracts which are needed by the commission in the performance of the com-

mission duties upon request to do so by the commission.

22.2(5) Form and identification. All tariffs shall conform to the following rules.

a. The tariff shall be printed, typewritten or otherwise reproduced on 8½x11-inch sheets of white paper equal in durability to twenty-pound bond paper with twenty-five percent cotton or rag content so as to result in a clear and permanent record. The sheets of the tariff should be ruled or spaced to set off a border on the left side suitable for binding. In the case of utilities subject to regulation by any federal agency the format of sheets of tariff as filed with the commission may be the same format as is required by the federal agency, provided that the rules of the commission as to title page; identity of superseding, replacing or revising sheets; identity of amending sheets; identity of the filing utility, issuing official, date of issue and effective date; and the words "Filed with the I.S.C.C." shall be applied to modify the federal agency format for the purposes of filing with this commission.

b. The title page of every tariff and supplement shall show in the order named:

(1) The first page shall be the title page which shall show:

(Name of Public Utility)

Telephone Tariff

Filed with

Iowa State Commerce Commission

_____ (date)

(2) When a tariff is to be superseded or replaced in its entirety, the replacing tariff shall show on its title page that it is a revision of a tariff on file.

(3) When a revision or amendment is made to a filed tariff, the revision or amendment shall show on each sheet the designation of the original tariff or the number of the immediate preceding revision or amendment which it replaces. (See exhibit A)

(4) When a new part of a tariff eliminates an existing part of a tariff it shall so state and clearly identify the part eliminated. (See exhibit A)

c. Any tariff modifications as defined above shall be marked in the right-hand margin of the replacing tariff sheet with symbols as here described to indicate the place, nature and extent of the change in text.

— Symbols —

(C) — Changed regulation

(D) — Discontinued rate or regulation

(I) — Increase in rate

(N) — New rate or regulation

(R) — Reduction in rate

(T) — Change in text only

d. All sheets except the title page shall have, in addition to the above-stated requirements, the following further information:

(1) (Name of public utility) Telephone Tariff under which shall be set forth the words "Filed with I.S.C.C." If the utility is not a corporation, and a trade name is used, the name of the individual or partners must precede the trade name.

(2) Issuing official and issue date.

(3) Effective date.

22.2(6) Content of tariffs.

a. A table of contents containing a list of exchange rate schedules and other sections in the order in which they appear showing the sheet number of the first page of each rate schedule or other section. In the event the utility filing the tariff elects to segregate a section such as general rules from the section containing the rate schedules or other sections, it may at its option prepare a separate table of contents or index for each such segregated section.

b. All rates of rate-regulated utilities for service defining the classes and grades of service that are available to the customers and to which each rate applies. With these rate schedules, a map shall be filed which shall clearly define the base rate boundary and any rural or special zones that are set forth in the tariff. The boundary line location on such maps shall be delineated from fixed reference points.

c. Any limitations on the type of equipment which may be connected, the length of billing period, and any special terms and conditions applicable. The discount for prompt payment or penalty for late payment, if any, and the period during which the net amount may be paid shall be specified.

d. Forms of standard contracts required of customers for the various types of service available other than those which are defined elsewhere in the tariff.

e. A designation, by exchange, of the EAS to other exchanges.

f. The list of exchange areas and the standard rates associated therewith, where rate control is authorized by law, shall be filed in such form as to facilitate ready determination of the rates available. If the utility has mileage extension charges, the areas where mileage rates apply shall be indicated.

g. Definitions of classes of customers.

h. Extension rules, under which extensions of service will be made, indicating what portion of the extension or cost thereof will be furnished by the utility; and if the rule is based on cost, the items of cost included as required in 22.3(5).

i. The type of construction which the utility requires the customer to provide if in excess of the Iowa electrical safety code or the requirements of the municipality having jurisdiction, whichever may be the most stringent in any particular.

j. Statement of the type of special construction commonly requested by customers which the utility allows to be connected, and the terms upon which such construction will be permitted, with due provision for the avoidance of unjust discrimination as between customers who request special construction and those who do not. This applies, for example, to a case where a customer desires underground service in overhead territory.

k. Rules with which prospective custo-

mers must comply as a condition of receiving service.

l. Rules governing the establishment of credit by customers for payment of service bills.

m. Rules governing the procedure followed in disconnecting and reconnecting service.

n. Notice by customer required for having service discontinued.

o. Rules covering temporary, emergency, auxiliary, and standby service.

p. Rules covering the type of equipment which may or may not be connected.

22.2(7) Annual, periodic and other reports to be filed with the commission.

a. *System maps.* The utility shall file annually a verification that it has a currently correct set of utility system maps in accordance with general requirement 22.3(6) and a statement as to the location of the utility's offices where such maps are accessible and available for examination by the commission or its staff. The verification and map location information shall also be reported to the commission upon other occasions when significant changes occur in either the maps or location of the maps.

b. Each utility shall file with the commission a report of each accident in connection with the operation of the utility's telephone plant which results in an injury temporarily disabling an employee for two days or more or resulting in permanent disability or death. Prompt notice of fatal accidents shall be given to the commission by telephone. A written report of the accident shall be filed within ten days next following the occurrence of the accident on forms approved by the commission. Such written reports shall indicate the following information:

(1) The name, address, and age of the person or persons involved in the accident.

(2) The time and place where the accident occurred.

(3) The cause of the accident in detail.

(4) The name of the individual, company, corporation, city or town operating the telephone exchange service.

c. The utility shall file annually a report of all important additions to the telephone plant by exchange or location, the construction or acquisition of which was completed by the utility during the preceding year and that which is planned for the current year. For the purpose of this rule an important addition to plant shall mean a single project involving the expenditure of more than \$50,000 or an amount equivalent to more than twenty-five percent of the total telephone plant in service, whichever is less.

d. Each utility shall compile a monthly record by exchange of station, central office, and outside trouble reports and held applications. This information shall be supplied on forms approved by the commission. The records shall be compiled not later than thirty days after the end of the month covered and shall, upon and after compilation, be kept

available for inspection by the commission or its staff. A summary of the twelve monthly records shall be attached to and submitted with the utility's annual report to the commission.

e. The utility shall keep the commission informed currently by written notice as to the location at which the utility keeps the various classes of records required by these rules.

f. A copy of each standard type of customer bill form in current use shall be filed with the commission.

g. The name, title, address, and telephone number of the person who is authorized to receive, act upon and respond to communications from the commission in connection with the following:

- (1) General management duties.
- (2) Customer relations (complaints).
- (3) Engineering operations.
- (4) Emergencies during nonoffice hours.

22.3(490A) General service requirements.

22.3(1) Held applications.

a. During such period of time as telephone utilities may not be able to supply initial telephone service to prospective customers or upgrade existing customers within thirty days after the date applicant desires service, the telephone utility shall keep a record by exchanges showing the name and address of each applicant for service, the date of application, date that service is desired, the class and grade of service applied for, together with the reason for the inability to provide the new service or higher grade to the applicant.

b. When, because of shortage of facilities, a utility is unable to supply main telephone service on dates requested by applicants, first priority shall be given to furnishing those services which are essential to public health and safety. In cases of prolonged shortage or other emergency, the commission may require establishment of a priority plan, subject to its approval for clearing held orders, and may request periodic reports concerning the progress being made.

22.3(2) *Directories.* All directories published after the effective date of these rules shall conform to the following:

a. Telephone directories shall be regularly published, listing the name, address and telephone number of all customers, except public telephones and numbers unlisted at customer's request.

b. Upon issuance, a copy of each directory shall be distributed to all customers locally served by that directory. A copy of each directory shall be furnished the commission at any time upon its request.

c. The year of issue shall appear on the front cover. Information pertaining to emergency calls, such as for the police and fire departments, for each exchange listed in the directory shall appear conspicuously on the back side of the front cover or on the front side of the first page of the directory.

d. The directory shall contain such instructions concerning placing local and long distance calls, calls to repair and information services, and location of telephone company business offices as may be appropriate to the area served by the directory. Rates between frequently called points may also be included.

e. Information or intercept operators shall maintain records of all telephone numbers (except telephone numbers not listed or published at customer request) in the area for which they are responsible for furnishing information service.

f. In the event of an error in the listed number of any customer, the telephone utility shall intercept all calls to the listed number for a reasonable period of time provided existing central office equipment will permit and the number is not in service. In the event of an error or omission, in the name listing of a customer, such customer's correct name and telephone number shall be in the files of the information or intercept operators and the correct number shall be furnished the calling party either upon request or interception.

g. Whenever any customer's telephone number is changed after a directory is published, the utility shall intercept all calls to the former number for a reasonable period of time and give the calling party the new number provided existing central office equipment will permit, and the customer so desires.

h. When additions or changes in plant, records or operations which will necessitate a large group of number changes are scheduled, reasonable notice shall be given to all customers so affected even though the additions or changes may be coincident with a directory issue.

22.3(3) Grade of service.

a. Within the base rate area, no utility shall connect more customers on any line than are contemplated under the grade of service charged the customer on such line.

b. On rural lines where multiparty service is provided, no more than eight customers shall be connected to any one circuit, unless approved by the commission. All rural circuits now serving more than eight customers shall be changed to meet this requirement within a five-year period following adoption of these rules. If twenty percent or more of the customers of a utility are on rural service lines serving more than eight parties, the utility shall file with the commission within twelve months from the adoption of the rules a plan showing the proposed action for reducing these lines to a maximum of eight parties. The telephone utility may regroup customers in such a manner as may be necessary to carry out the provision of this rule. An application for extension of time may be made. Such application shall contain the following:

(1) An analysis of the original amount of work to be completed in meeting the provisions of this rule as to work completed and in service at time of extension application,

work under construction at time of extension application, and work not yet begun.

(2) Estimated date of completion.

(3) Reasons why the total conversion plan has not yet been completed as previously scheduled.

(4) Justification of the additional time requested.

Upon completion in the meeting of this requirement a report to that effect shall be filed with the commission.

22.3(4) *Public telephone service.*

a. In each exchange the telephone utility shall supply at least one coin telephone that will be available to the public on a twenty-four-hour basis. This coin telephone shall be located in a prominent location in the exchange and shall be lighted at night. The utility may also establish other public telephone service at locations where the public convenience will be served. This requirement may be waived by the commission in cases of abusive vandalism or damage.

b. In other locations the telephone utility may provide semipublic telephone service to subscribers. Semipublic service is used at locations where the installation of a public telephone is not warranted but where there is a demand for telephone service for transients or where there is a need of this service by guests, employees, members or occupants, or where there is a demand for service by a combination of transient and customer use.

22.3(5) *Extension plan.* Each utility shall develop a plan, acceptable to the commission, for the extensions of facilities, where they are in excess of those included in the regular rates for service and for which the customer shall be required to pay all or part of the cost. This plan must be related to the investment that prudently can be made for the probable revenue. No utility shall make or refuse to make any extensions except as permitted by the approved extension plan.

22.3(6) *Maps.*

a. Each telephone utility shall maintain in a current status exchange maps showing the exchange service area for each telephone exchange operated, and the map shall be in sufficient detail to reasonably permit locating the exchange service area boundaries in the field. A copy of such maps shall be available to the commission or its authorized representatives at any time upon request.

b. The maps shall show:

- (1) Base rate area.
- (2) Exchange boundary.
- (3) Location of central office.
- (4) Name of communities (P.O. designations) served.
- (5) State boundary crossings (if any).
- (6) Interexchange routes and circuit information. (This information may be otherwise provided on forms approved by the commission.)

-22.3(7) *Traffic rules.*

a. Suitable practices shall be adopted by each telephone utility concerning the operating methods to be employed by operators with the objective of providing efficient and pleasing service to the customers.

b. Telephone operators shall be instructed to be courteous, considerate and efficient in the handling of all calls, and to comply with the provisions of the Communications Act of 1934 in maintaining the secrecy of communications.

c. All operator-handled calls shall be carefully supervised and disconnects made promptly.

d. When an operator is notified by a customer that he has reached a wrong number on a direct dialed call, the customer shall be given credit on his bill when the claim has been substantiated.

22.4(490A) *Customer relations.*

22.4(1) *Customer information.*

a. Each utility shall:

(1) Maintain up-to-date maps, plans, or records of its entire exchange systems, together with such other information as may be necessary to enable the utility to advise prospective customers, and others entitled to the information, as to the facilities available for serving prospective customers in its service area.

(2) Inform the customer or prospective customer of the basic grades of service available at his subscriber location and the charges associated therewith.

(3) Notify customers affected by a change in rates or schedule classification.

(4) Post a notice in a conspicuous place in each office of the utility where applications for service are received, informing the public that copies of the rate schedules and rules relating to the service of the utility, as filed with the commission, are available for inspection.

(5) Furnish such additional information as the customer may reasonably request.

b. Employees responsible for the receiving of customer telephone calls and customer office visits shall be properly qualified and instructed in the screening and prompt handling of complaints to assure prompt reference of the complaint to the person or department capable of effective handling of the matter complained of and to obviate the necessity of the customer's preliminary repetition of the entire complaint to employees lacking in ability and authority to take appropriate action.

22.4(2) *Customer deposits.* Each utility may require from any customer or prospective customer a deposit intended to guarantee payment of bills for service.

a. Such deposit shall not be less than five dollars nor more in amount than the maximum charge for two months local exchange service plus two months estimated toll service,

or as may reasonably be required by the utility in cases involving service for short periods or special occasions.

b. Interest on deposit.

(1) Simple interest on deposits at the rate of at least five percent per annum shall be paid by the utility to each customer required to make such a deposit for the time held by the utility. Interest shall be paid from the date of deposit to the date of refund or the date upon which the customer's account becomes delinquent, whichever is earlier, unless such period be less than six months.

(2) Payment of interest to the customer shall be made annually if requested by the customer, or at the time the deposit is returned.

(3) The interest shall be accrued annually.

(4) The deposit shall cease to draw interest on the date it is returned, on the date upon which the customer's account becomes delinquent, or on the date notice is sent to the customer's last known address that the deposit is no longer required.

c. Each utility shall keep records to show:

(1) The name and address of each depositor.

(2) The amount and date of the deposit.

(3) Each transaction concerning the deposit.

d. Each utility shall issue a receipt of deposit to each customer from whom a deposit is received, and shall provide means whereby a depositor may establish his claim if his receipt is lost.

e. The deposit shall be refunded upon request of the customer after twelve consecutive months of prompt payments, and, without such request, shall be refunded by the utility after thirty-six consecutive months of prompt payment. In no case, however, must a deposit be refunded if the customer's credit standing is not satisfactory to the utility.

f. A record of each unclaimed deposit must be maintained for at least three years during which time the utility shall make a reasonable effort to return the deposit.

g. Unclaimed deposits, together with accrued interest, shall be credited to an appropriate account.

h. A new or additional deposit may be required upon reasonable written notice of the need for such a requirement in any case where a deposit has been refunded or if found to be inadequate to cover the amount as provided for in "a" above, or where a customer's credit standing is not satisfactory to the utility. The service of any customer who fails to comply with these requirements may be disconnected upon five days written notice.

22.4(3) Customer billing. Bills to customers shall be rendered regularly and clearly list

all charges. Reasonable customer requests for an itemized statement of charges shall be complied with.

22.4(4) Customer complaints. Complaints concerning the charges, practices, facilities, or service of the utility shall be investigated promptly and thoroughly. The utility shall keep a record of such complaint showing the name and address of the complainant, the date and nature of the complaint, its disposition, and all other pertinent facts dealing with the complaint, which will enable the utility to review and analyze its procedure and actions. The records maintained by the utility under this rule shall be available for inspection by the commission or its staff upon request.

22.4(5) Discontinuance, suspension or refusal of service.

a. In the event of nonpayment of any sum due for exchange, toll, or other service, the telephone utility may with respect to such service suspend or discontinue the service without suspension, or following suspension of service sever the connection and remove any of its equipment from the customer's premises, provided that the utility has made a reasonable attempt to effect collection and has given the customer written notice that he has at least five days in which to make settlement of his account or make a deposit in accordance with 22.4(2). In unusual credit circumstances or abnormal usage of service which would result in undue revenue loss, the requirement of a five-day written notice would not apply.

b. In the event there is disagreement or dispute concerning a bill for telephone service, the telephone company may require the customer to pay a sum of money equal to the amount of the undisputed portion of the bill to the telephone utility pending settlement and thereby avoid discontinuance of service for nonpayment of such disputed bill.

c. No deposit shall be required as a condition for establishment of service other than as provided in the utility's rules and tariffs on file with the commission.

d. Service may be denied to any applicant for failure to comply with applicable requirements of these rules, or of the utility's rules, or the requirements of municipal ordinances, or law pertaining to the services.

e. Delinquency in payment for service rendered to a previous occupant of the premises to be served and unpaid charges for services or facilities not ordered by the present or prospective subscriber shall not constitute a sufficient cause for refusal of service to a present or prospective subscriber.

22.4(6) Temporary service. When the utility renders temporary service to a customer, it may require that the customer bear all the cost of installing and removing the service facilities in excess of any salvage realized.

22.5(490A) Engineering.

22.5(1) Requirement for good engineering practice. The telephone plant of the utility shall be constructed, installed, maintained and operated subject to the provisions of the Iowa electrical safety code or the requirements of any municipality having jurisdiction, whichever may be the most stringent, and in accordance with accepted good engineering practice in the communication industry to assure, as far as reasonably possible, continuity of service, uniformity in the quality of service furnished, and the safety of persons and property.

22.5(2) Adequacy of service.

a. Each utility shall employ recognized engineering and administrative procedures to determine the adequacy of service being provided to the customer.

b. Traffic studies shall be made and records maintained to determine that sufficient equipment and an adequate operating force are provided during the busy-season, busy-hour.

c. Each telephone utility shall provide emergency service in all exchanges operated in which regular service is not available at certain periods during the twenty-four hours of the day. When service is not continuous for the full twenty-four-hour day, proper arrangements shall be made for handling emergency calls during the off periods by the use of alarms maintained in proper condition with someone conveniently available so that emergency calls will be given prompt attention.

d. Each utility shall employ adequate procedures for assignment of facilities. The assignment record shall be kept up-to-date and checked periodically to determine if adjustments are necessary to maintain proper balance in all groups.

22.5(3) Manual switchboard requirements.

a. Switchboards shall be provided with sufficient cord pairs to handle the calls of an average busy-season, busy-hour so that ninety-six percent of the calls are answered on the initial attempt.

b. The position requirements shall be engineered on the basis of each position handling no more than 230 traffic units during the average busy-season, busy-hour. (This shall be applicable to all types of switchboards.)

22.5(4) Dial service requirements.

a. Each utility shall employ appropriate procedures to determine the adequacy of central office equipment. Sufficient central office capacity and equipment shall be provided to meet the following minimum requirements during average busy-season, busy-hour:

(1) Dial tone within three seconds on at least ninety-five percent of telephone calls.

(2) Complete dialing of called numbers on at least ninety percent of telephone calls without encountering an all-trunks-busy condition within the central office.

b. Each telephone utility shall engineer all new and additional central office equip-

ment requirements using sound engineering practice, consistent with the practices of the telephone industry.

c. Rural lines shall be engineered for a line fill of no more than eight customers per line. Whenever practical, all new dial offices shall be engineered on a terminal per station basis.

d. Each central office shall be provided with alarms to indicate improper functioning of equipment.

22.5(5) Grounded circuits. On and after the effective date of these rules, no additional telephone lines shall be constructed as a single wire with ground return. Telephone utilities shall provide full metallic circuits for all customers located within the base rate area, and so far as economically feasible, to all rural multiparty customers located beyond the base rate area. Telephone utilities operating ground return rural circuits which are affected by inductive interference should co-operate to the fullest extent possible with all interested parties in correcting this condition, and where necessary to eliminate inductive or conductive interference full metallic circuits, properly transposed, shall be provided.

22.5(6) Interexchange trunks.

a. When trunk lines or toll circuits for communication are furnished by one or more telephone utilities between exchanges, the circuits connecting such exchanges shall be non-grounded. No customer's instruments other than toll stations shall be regularly connected thereto.

b. Interexchange trunks shall be provided so that at least ninety-five percent of telephone calls offered to the group will not encounter an all-trunks-busy condition. For toll connecting trunks, this figure shall be at least ninety-seven percent.

22.5(7) Transmission requirements. Telephone utilities shall furnish and maintain adequate plant, equipment and facilities to provide satisfactory transmission of communications between customers in their service areas. Transmission shall be at adequate volume levels and free of excessive distortion. Levels of noise and cross talk shall be such as not to impair communications.

22.5(8) Minimum transmission objectives.

a. The transmission objectives set forth herein are based upon the use of standard telephone sets connected to a 48-volt dial central office, and measured at a frequency of 1,000 cycles.

b. With the foregoing conditions a subscriber line that provides satisfactory pulsing and supervision normally will provide acceptable and adequate transmission. Such line should, in general, have a loop resistance not exceeding the operating design of the associated central office equipment.

c. The over-all transmission loss, including terminating equipment, on local interex-

change or interoffice trunks should be no more than ten decibels.

d. Whenever feasible, the over-all transmission loss, including terminating equipment, on intertoll trunks and on terminating links should be no more than five decibels measured at multiple frequencies between 200 and 3,000 cycles. Because these trunks may be only one of several connected links on some toll routes, it may be necessary to provide better facilities in order to keep the over-all net circuit losses within the five decibel limit so as to provide satisfactory message transmission.

22.5(9) Joint use. Where joint construction is mutually agreed upon, it shall be subject to the provisions of the Iowa electrical safety code or such other appropriate regulation as may be prescribed.

22.5(10) Provisions for testing. Each telephone utility shall provide or have access to test facilities which will enable it to determine the operating and transmission capabilities of circuit and switching equipment, either for routine maintenance or for fault location.

22.5(11) Answering time. At manual exchanges ninety-five percent of the local calls shall be answered by the operator within ten seconds. In large manual exchanges it should be possible to answer the majority of such calls within three seconds except during periods of momentary peak loads. It is not contemplated that this rule can be observed during periods of emergency when an abnormal and unexpected volume of traffic occurs. In manual toll offices, ninety percent of trunk signals shall be answered within ten seconds. On the average, calls shall be answered within five seconds. The average time interval between operator's answer of the customer's signal and the initial signal or report as to the called number should be no more than ninety seconds unless delayed due to reference to rate and route operators.

22.5(12) Maintenance of plant and equipment.

a. Each telephone utility shall adopt and pursue a maintenance program aimed at achieving efficient operation of its system so as to permit the rendering of safe, adequate, and continuous service at all times.

b. Maintenance shall include keeping all plant and equipment in a good state of repair consistent with safe and adequate service performance. Broken, damaged, or deteriorated parts which are no longer serviceable shall be repaired or replaced. Adjustable apparatus and equipment shall be readjusted as necessary when found by preventive routines or fault location tests to be in unsatisfactory operating condition. Electrical faults, such as leakage or poor insulation, noise induction, cross talk, or poor transmission characteristics shall be corrected to the extent practicable within the design capability of the plant affected.

c. In all exchanges, periodic leakage tests shall be made on all circuits by use of proper instruments to determine that sufficient insulation is being maintained and further to discover any substantial change in insulation values which might cause future service difficulties. Loop resistance tests or transmission loss tests should be made on local circuits when transmission is poor, in an endeavor to locate the source of trouble.

d. Maintenance of aerial plant shall include the replacement of broken or missing insulators; broken or badly deteriorated poles, crossarms and brackets; rusted wires; and broken-down guys. Defective splices shall be replaced, slack wire retensioned, wires properly transposed, and adequate clearance provided between the wires and trees or brush.

e. Switchboard maintenance shall include the replacement of frayed cords, the periodic gauging of jack ferrules, and plugs, and the replacement of ferrules and plugs worn beyond reasonable tolerance. The night alarm circuit for each line and the ringoff drops on the cord circuits shall be tested periodically and adjustments made where necessary. Central office batteries shall be replaced when required to maintain good telephone service.

f. Dial central office equipment shall be inspected and routinely tested at regular intervals, and such repairs, adjustments or replacements made as are found to be necessary and as are required to insure the proper functioning of dial switching equipment.

g. All station apparatus shall be properly maintained including replacement of transmitters and receivers and cords when broken, damaged, or when necessary for good transmission. Utility owned station batteries on magneto systems shall be replaced when the voltage per cell is one volt or less.

h. All station dry cells shall show either the date of original installation or the date of manufacture, or in lieu thereof the telephone utility may keep a record at each central office of the dates of installation of station batteries used at stations served from that central office.

i. Records of various tests and inspections shall be kept on file in the office of the telephone utility for a minimum of one year. These records shall show the line or station tested or inspected, the reason for the test, the general conditions under which the test was made, the general result of the test, and such corrections as were made when the test indicated need for same.

22.6(490A) Standards of quality of service.

22.6(1) Service interruption.

a. Each telephone utility shall make all reasonable efforts to prevent interruptions of service. When interruptions occur, the utility shall re-establish service with the shortest possible delay. The following objectives in the clearing of trouble reports shall be observed:

(1) In central offices in excess of 10,000 terminals:

Business service: Eighty percent cleared within two hours

Residence service: Eighty percent cleared within four hours

(2) In central offices with less than 10,000 terminals:

Business service: Eighty percent cleared in eight hours

Residence service: Eighty percent cleared in twenty-four hours.

b. Each telephone utility shall inform the commission as soon as possible of any occurrence of an unusual nature which apparently will result in prolonged and serious interruption of service to a large number of customers.

c. Arrangements shall be made to have personnel available to receive and record trouble reports twenty-four hours daily and also to clear trouble of an emergency nature; at night, on holidays, and weekends, as well as during regular working hours.

d. Whenever service must be interrupted during regular working hours for the purpose of working on the lines, cable or equipment, the work shall be done at a time which will cause the least inconvenience to the customers, and any who would be seriously affected by such interruption shall, so far as possible, be notified in advance.

e. Each telephone utility shall keep a written record showing all interruptions affecting service in an entire exchange service area or any major portion thereof for a minimum of six years. This record shall show the date, time, duration, time cleared and extent and cause of the interruption. This record shall be available to the commission or its authorized representatives upon request at any time within the period prescribed for retention of such records.

f. Whenever a trouble report is received, a record should be made by the company and if repeated within a thirty-day period by the same customer, this case shall be referred to a supervisor for permanent correction.

g. When a customer's telephone is reported or found to be out of order, it shall be restored to service as promptly as possible. In the event it remains out of order in excess of forty-eight consecutive hours after being reported or known to be out of order, the utility shall refund to the customer the prorata part of that month's charges for the period of days during which the telephone was out of order if the customer so requests. This refund may be accomplished by a credit on a subsequent bill for telephone service.

h. In the event of a catastrophe, as determined by the commission, the matter of refund and out of service as outlined above does not apply.

i. It shall be a minimum objective to so maintain the service that the average rate of customer trouble reports in an exchange is no greater than fourteen per one hundred telephones per month.

22.6(2) Emergency operation.

a. Each telephone utility shall make reasonable provisions to meet emergencies resulting from failures of lighting or power service, sudden and prolonged increases in traffic, illness of operators, or from fire, storm, or acts of God, and each telephone utility shall inform employees as to procedures to be followed in the event of emergency in order to prevent or mitigate interruption or impairment of telephone service.

b. It is essential that all central offices have adequate provision for emergency power. In offices without installed emergency power facilities, there shall be access to a mobile power unit which can be delivered on short notice.

c. In toll centers and in exchanges exceeding 10,000 terminals, it is essential that a permanent auxiliary power unit is installed.

22.7(490A) Safety.

22.7(1) Protective measures.

a. Each utility shall exercise reasonable care to reduce the hazards to which its employees, its customers, and the general public may be subjected.

b. The utility shall give reasonable assistance to the commission in the investigation of the cause of accidents and in the determination of suitable means of preventing accidents.

c. Each utility shall maintain a summary of all reportable accidents arising from its operations.

22.7(2) Safety program. Each utility shall adopt and execute a safety program, fitted to the size and type of its operations. As a minimum, the safety program should:

a. Require employees to use suitable tools and equipment in order that they may perform their work in a safe manner.

b. Instruct employees in safe methods of performing their work.

c. Instruct employees who, in the course of their work, are subject to the hazard of electrical shock, asphyxiation or drowning, in accepted methods of artificial respiration.

EXHIBIT A

.....Telephone Tariff
(Name of Company)
Filed with I. S. C. C.
Part No.....
..... Sheet No.....
Canceling (or revising)..... Sheet No.....
Amending Sheet No.....

EXAMPLE

Issued Effective
(Date) (Date)
By

These rules are intended to implement sections 490A.2 and 490A.8 of the Code.

[Filed December 12, 1967]

CHAPTER 23
ANNUAL REPORT

23.1(490A) General information.

23.1(1) Every public utility is required to keep and render its books, accounts, papers and records accurately and faithfully in the manner and form prescribed by the commission and to comply with all directions of the commission relating to such books, accounts, papers, and records.

23.1(2) In order that the commission may keep informed regarding the manner and method in which a utility business is conducted, and in order to obtain information on which to apportion the costs of operation of the utilities division of the commerce commission as prescribed by chapter 490A, all public utilities coming under the provision of chapter 490A of the Code, shall file with this commission, annual reports as hereinafter described in these rules, on or before April 1 of each year covering their operations during the immediately preceding calendar year. In the event that a utility has ceased operations through merger or sale of its plant during the calendar year, each of the involved utilities shall be responsible for filing an annual report with the commission which reflects the operations of the properties which were subject to such sale or merger. The annual report covering the portion of the calendar year operations to the date of sale or merger shall be filed with the commission within ninety days after such transaction.

23.1(3) All pages of the report must be completed and submitted to the commission. The words "none" or "not applicable" may be used to complete a schedule when they accurately and fully state the facts. The commission shall be notified of the nature, amount and purpose of any accounts used in addition to those prescribed in utilities division chapter 16, "Accounting Rules and Regulations". See 16.1(4), 16.2(4), 16.3(1), 16.4(4), and 16.5(1). A copy shall be retained in the respondent's file. All reports are to be prepared for and certified to the Iowa state commerce commission.

23.1(4) Annual report requirements specified in "Regulations Governing Service Supplied by Gas, Electric, Telephone, or Water Utilities", utilities division, chapters 19, 20, 21, and 22, shall be included with the annual reports set forth in the following paragraphs. The reporting utility should use their own format in preparing such reports.

23.2(490A) Annual report requirements—rate-regulated utilities. Two copies each of the following report forms must be completed and filed with the commission.

23.2(1) Electric utilities:

a. Class A & B—Form IE-1, Annual Report—Rate-Regulated Electric Utilities (including FPC Annual Report Form No. 1).

b. Class C & D—Form IE-1, Annual Re-

port—Rate-Regulated Electric Utilities (including FPC Annual Report Form No. 1F).

23.2(2) Gas utilities:

a. Class A & B—Form IG-1, Annual Report—Rate-Regulated Gas Utilities (including FPC Annual Report Form No. 2).

b. Class C & D—Form IG-1, Annual Report—Rate-Regulated Gas Utilities (including FPC Annual Report Form No. 2A).

23.2(3) Telegraph utilities:

a. Form RTG-1, Annual Reports—Rate-Regulated Telegraph Utilities (including FCC Annual Report Form—R & O).

23.2(4) Telephone utilities:

a. Form RRT-1, Annual Report—Rate-Regulated Telephone Utilities (including FCC Annual Report Form M).

23.2(5) Water utilities:

a. Class A & B—Form WA-1, Annual Report—Rate-Regulated Water Utilities.

b. Class C & D—Form WD-1, Annual Report—Rate-Regulated Water Utilities.

23.2(6) Reports by rate-regulated utilities which have multistate operations shall provide information concerning their Iowa operations on the schedules listed below. Such schedules shall be prepared using the same format used in reporting total company data and shall be clearly labeled "Iowa Operations" at the top of each schedule. It shall include:

a. Summary of utility plant and accumulated depreciation and amortization reserves.

b. Plant in service by primary account.

c. Materials and supplies.

d. Contributions in aid of construction.

e. Accumulated deferred income taxes.

f. Accumulated investment credit.

g. Statement of income for the year.

h. Operating revenues.

i. Operating and maintenance expenses.

j. Taxes charged during year.

Statements shall be included setting forth the method or basis used in making allocations between states.

23.2(7) In addition to the above-mentioned reports, the respondent shall also file with the commission, immediately upon publication, two copies of any financial, statistical or operational reviews or reports that a company may prepare for distribution to stockholders, bondholders, or any other interested parties.

23.3(490A) Annual report requirements—nonrate-regulated utilities.

23.3(1) Municipally owned electric:

a. Form ME-1, Annual Report—Municipal Electric Plant and Operations (including one copy of "Report of Utilities" prepared for the state auditor's office).

23.3(2) Municipally owned gas utilities:

a. Form MG-1, Annual Report—Municipal Gas Plant and Operation (including one

copy of "Report of Utilities" prepared for the state auditor's office).

23.3(3) Nonrate-regulated telephone utilities:

a. Form NRT-1, Annual Report—Telephone Plant and Operations.

23.3(4) Co-operative electric utility corporations or associations:

a. Form EC-1, Annual Report—Co-operative Electric Plant and Operations.

These rules are intended to implement sections 490A.2, 490A.9, 490A.10 and 490A.22 of the Code.

[Filed December 12, 1967]

COMPTROLLER, STATE

**CHAPTER 1
AUDITING CLAIMS**

All vouchers and claims required by law to be audited by the state comptroller should conform to the following rules:

1.1(8) All claims shall be typewritten, or written in ink, and be itemized and certified to by the claimant. Approval of the claim shall be certified thereon by the head of the department or his deputy, or chairman of the board or commission or its executive officer. Claims shall show in the space provided therefore reference to the appropriation or allocation from which the claim is payable.

1.2(8) Claims for personal property sold, or services rendered to the state, should have the original invoices attached whenever possible to do so.

1.3(8) Claims for personal property sold or services rendered to the state shall be deemed presented for payment when filed or received by the department whose approval thereof is required under 1.1(8) notwithstanding any delay by the department in forwarding same with its approval to the comptroller for payment.

1.4(8) When compensation is fixed on an annual or monthly basis and services rendered cover less than a full month, compensation is to be made on the basis of a thirty-day month.

1.5(8) Officers and employees shall be allowed lodging and meal expenses when required to travel outside of the city or town of their residence or official domicile, but in no event shall the amount thereof exceed thirteen dollars per day in this state. The thirteen dollars per day limit includes:

1.5(1) Lodging. (Name of establishment where expense is incurred must be given and receipt submitted.)

1.5(2) Meals. (Receipts may be required at the option of state comptroller.) If travel does not require overnight lodging, meal allowance will be restricted as follows:

a. Those traveling on state business who depart prior to 7:00 a.m. and return after 6:00 p.m. to their official domicile, may be reimbursed a maximum of seven dollars per day for three meals.

b. Those traveling on state business who depart after 7:00 a.m. and return after 6:00 p.m. may be reimbursed a maximum of five

dollars and seventy-five cents per day for lunch and dinner.

c. Those traveling on state business who depart before 7:00 a.m. and return before 6:00 p.m. may be reimbursed a maximum of three dollars and twenty-five cents for breakfast and lunch.

d. Those traveling on state business who depart after 7:00 a.m. and return before 6:00 p.m. may be reimbursed a maximum of two dollars for lunch.

1.5(3) Sales tax on lodging and meals. Lodging and meal expenses are not limited outside the state, but the expenditures should be reasonable. (Receipt for lodging to be submitted.)

This rule does not apply to elected officials, and the state comptroller may, at the request of a department head, grant other exceptions necessitated by unusual circumstances.

1.6(8) Officials and employees continuously employed at the seat of government or at an official domicile, will not be allowed subsistence expense. Officers and employees whose residence is elsewhere than the official domicile will not be allowed any expense at such residence or for traveling between residence and official domicile.

1.7(8) The place of official domicile or residence should be shown on the claim in addition to the place where expense is incurred, the nature of employment, and by whom ordered.

1.8(8) Where an employee works at one place for one week or more, he shall be allowed expense for lodging at the weekly or monthly rate, receipt to be submitted.

1.9(8) Federal tax exemption certificates should be used in connection with the purchase of transportation, or on any article that has federal tax. Any payment of such tax will be deducted from claim.

1.10(8) The statutory allowance of ten cents per mile for use of private automobile in state business shall include all expense of the automobile.

1.11(8) The hire of special conveyance will be allowed only when no public or regular means of transportation are available, or when such public or regular means of transportation cannot be used advantageously, in which case receipt therefor should accompany claim, or its absence satisfactorily explained.

1.12(8) Telegraph or long distance telephone expense shall show that same was for official business, and between what points and parties. When calling or wiring a state officer or department, reverse charges.

1.13(8) All charges for necessary stenographic or typing service, rental of typewriter in connection with preparation of official reports or correspondence, clerical assistance, hire of conference room for state business and other expense should be charged under the heading "Miscellaneous" and will be allowed if approved by head of department, and if clearly, fully and satisfactorily explained and

receipts for same are attached to claim. All parking and storage charges on state-owned vehicles will be paid when claim is accompanied by receipt. Registration fees away from the official domicile will be allowed when receipt is attached to claim. Registration fees at official domicile may be allowed with prior approval of state comptroller, and, if allowed, receipt must be attached to claim.

It is the duty of department heads and executive officers of boards and commissions to keep expenditures at the lowest reasonable amount in connection with expense incurred by reason of public service.

[Filed February 16, 1966]

CONSERVATION COMMISSION

DIVISION OF FISH AND GAME

CHAPTER 1

GAME MANAGEMENT AREAS

1.1(109) **Blinds and decoys.** Blinds and decoys are prohibited on all game management areas, except Lake Odessa in Louisa County, between the hours of one-half hour after close of hunting time and midnight each day.

1.2(109) Lake Odessa in Louisa County.

[Special regulations, by temporary rule, shall be in effect for Lake Odessa.]

This rule is intended to implement section 109.6 of the Code.

[Filed August 12, 1970]

CHAPTER 2

GAME MANAGEMENT AREAS

2.1(109) **Jurisdiction.** All lands and waters under the jurisdiction of the Iowa conservation commission are established as game management areas under the provisions of section 109.6 of the Code.

[Filed March 8, 1966]

CHAPTER 3

STATE GAME REFUGES

3.1(109) **Unlawful restrictions.** The following areas under the jurisdiction of the Iowa state conservation commission are established as game refuges where posted as such. It shall be unlawful to hunt, pursue, kill, trap or take any wild animal, bird or game on these areas at any time, and no one shall carry firearms thereon.

Area	County
Sweet Marsh	Bremer
Storm Lake Island	Buena Vista
Big Marsh	Butler
South Twin Lake	Calhoun
Round Lake	Clay
Allen Green Refuge	Des Moines
Ingham Lake	Emmet
Forney Lake	Fremont
Riverton Area	Fremont
Dunbar Slough	Greene
Bays Branch	Guthrie

McCord Pond	Guthrie
California Bend	Harrison
Hawkeye Wildlife Area	Johnson
Muskrat Slough	Jones
Colyn Area	Lucas
Red Rock Area	Marion
Louisville Bend	Monona
Five Island Lake	Palo Alto
Flint Access	Polk
Gifford Sanctuary	Pottawattamie
Smith Area	Pottawattamie
Lake View Area	Sac
Otter Creek Marsh	Tama
Rice Lake Refuge	Winnebago
Snyder Bend	Woodbury
Lake Cornelia	Wright

[Filed September 13, 1966]

CHAPTER 4

DOG RESTRICTIONS IN STATE AREAS

4.1(109) **Where restricted.** Dogs shall be prohibited on all state-owned game management areas, as established under authority of section 109.6 of the Code, between the dates of March 15 and July 15 each year; except that, field and retriever meets may be conducted at designated sites after first securing a permit as provided in section 109.22.

Such permit shall show the exact designated site of said meet and all dogs shall be confined to that site.

[Filed September 11, 1962]

CHAPTER 5

LEGAL RESIDENCY

5.1(109) **Defined.** The requirements for legal residence as referred to in chapter 110 of the Code insofar as it applies to the issuance of sport fishing, small game hunting, combined hunting and fishing, and trapping licenses are concerned shall be as follows: Any individual who has lived in the state continuously for a period of thirty days shall be considered a legal resident of the state for the purpose of purchasing a sport fishing, small game hunting, combined hunting and fishing, or trapping license.

[Filed December 13, 1962]

CHAPTER 6

SCUBA AND SKIN SPEARING OF
ROUGH FISH

6.1(109) When permitted. The spearing of rough fish by scuba and skin divers will be permitted in accordance with the following seasons and rules.

6.2(109) Prohibited areas. Scuba and skin spearing for rough fish will be prohibited in all natural lakes in Iowa between May 1 and October 1 of each year, except on West Okoboji and Spirit Lakes, in Dickinson county, where no seasonal limitations will be invoked.

6.2(1) Scuba and skin spearing shall be permitted in all state-owned meandered streams.*

a. Des Moines River—From Mississippi River to west line of T-95N, R-32W, Palo Alto county, west branch, and north line of T-95N, R-29W, Kossuth county, east branch; a point near Algona.

b. Iowa River—From Mississippi River to west line T-81N, R-11W, Iowa county near Koszta.

c. Cedar River—From Iowa River to west line T-89N, R-13W, Black Hawk county, at Cedar Falls.

d. Raccoon River—From Des Moines River to west line Polk county.

e. Wapsipinicon River—From Mississippi River to west line T-89N, R-6W, above Central City in Linn county.

f. Maquoketa River—From Mississippi River to west line T-84N, R-3E, near Maquoketa in Jackson county.

g. Skunk River—From Mississippi River to north line T-73N, R-8W, northeast corner of Jefferson county.

h. Turkey River — From Mississippi River to west line T-95N, R-7W, Fayette county near Clermont.

i. Nishnabotna River—To north line T-67N, R-42W, Fremont county, northeast of Hamburg.

j. Upper Iowa River—From its mouth to west line Section 28-100-4 west, Allamakee county.

k. Little Maquoketa River—From Mississippi River to west line Section 25-90-2 east, Dubuque county.

6.2(2) Scuba and skin spearing shall be permitted in streams or impoundments on private land where access is permitted by owner or lessee.

6.2(3) Scuba and skin spearing is prohibited in all state-owned artificial lakes.

6.2(4) Scuba and skin spearing is prohibited in all state-owned strip mines, county conservation board areas and fish and game management areas where posted as such.

6.2(5) Scuba and skin spearing is pro-

*A meandered lake or stream is one which at the time of the original government survey was so surveyed as to mark, plat and compute acreage of adjacent fractional section.

hibited within 100 feet of any swimming beach area.

6.2(6) Scuba and skin spearing of carp, buffalo, quillback, gar and dogfish only shall be lawful between the hours of sunrise and sunset each day.

6.2(7) A valid fishing license shall be required of all individuals engaged in scuba and skin spearing unless the individual is exempt under the provisions of section 110.17 of the Code.

6.3(109) Permitted equipment. Permitted equipment to be used in scuba and skin spearing shall be:

1. Hand and pole spears.
2. Rubber band powered spear guns.
3. Spring powered spear guns.
4. Pneumatic spring powered spear guns.
5. All spears used on powered spear guns shall be attached to the gun by a cord lanyard or other device, the over-all length of spear gun and cord shall not exceed twenty feet.

6.4(109) Prohibited equipment. Prohibited equipment and methods shall be:

1. No power or exploding spear heads will be permitted.
2. No guns powered by gunpowder explosive or explosives or compressed gas will be permitted.
3. A spear gun may not be cocked or fired within 100 feet of any swimming beach area.
4. It shall be unlawful to cock or discharge a powered spear gun above the surface of the water.

6.5(109) Diver's flag. The "International Diver's Flag" (a red flag with a white diagonal stripe running from the upper left-hand corner to the lower right-hand corner, minimum size, 12" x 15", with a 3" stripe), shall be displayed by each diver or group of divers on a buoy, float or boat during any diving or underwater spear fishing activity. This diving flag shall be displayed on the water only when underwater diving activity is in progress, the diver or group of divers must stay within a 100-foot circle of the flag. Recognition of this flag by law will not be construed as conferring any rights or privileges on its users nor be construed as restricting the use of the water so marked. Operators of boats shall exercise precaution commensurate with conditions indicated.

6.6(109) Employees exempt. Underwater scuba and skin spearing regulations shall not apply to authorized agents of the state conservation commission when engaged in research or management studies or enforcement.
[Filed March 8, 1966]

CHAPTER 7

OPEN WATER REFUGES

7.1(109) Zone. Hunting on the following natural lakes is restricted to a zone extending fifty yards into the lake from the ordinary

high-water mark or continuous emergent vegetation. Beyond this zone is a wildlife refuge.

COUNTY	AREA
Buena Vista	Storm Lake
Calhoun	North Twin Lake
Cerro Gordo	Clear Lake
Dickinson	East Okoboji, Minnewashta, Upper and Lower Gar Lakes
Dickinson	Spirit Lake
Dickinson	West Okoboji Lake
Dickinson	Silver Lake
Emmet	High Lake
Emmet	Ingham Lake
Emmet	Tuttle Lake
Palo Alto	Lost Island Lake
Palo Alto	Silver Lake
Palo Alto	Virgin Lake
Pottawattamie	Lake Manawa
Sac	Black Hawk Lake

[Filed October 25, 1962]

CHAPTER 8
USE OF FIREARMS

8.1(109) **Banner Mine Area.** The use of firearms in the Banner Mine Area, a game management area in Warren county, Iowa, shall be restricted as follows:

Between the dates of March 1 to August 31 of each year the use of firearms on any portion of the Banner Mine Area, except the posted firing areas, is prohibited.

[Filed July 13, 1965]

CHAPTER 9
MOTOR VEHICLE RESTRICTIONS

9.1(109) **Game management areas.** The use of motor vehicles in all designated fish and game areas shall be restricted as follows:

Motor vehicles shall be restricted from all designated fish and game management areas except on constructed or designated roads and parking lots within these areas.

9.2(109) **Employees exempt.** This shall not apply to personnel of the state conservation commission and authorized persons engaged in research, management or enforcement.

[Filed September 14, 1965]

CHAPTER 10
MARKING OF WATERFOWL

10.1(110A) **Marked for shooting.** All waterfowl released for shooting purposes shall be physically marked by removal of the hind toe from the right foot at not more than four weeks of age.

[Filed August 23, 1967]

CHAPTER 11
PROMISCUOUS FISHING

11.1(109) **General.** The conservation commission may, after an investigation, when it is found there is imminent danger of loss of fish through natural causes, authorize by public order the taking of fish from any area

and by such means as they may deem advisable to salvage such imperiled fish populations.

11.1(1) **Method of take.** Fish may be taken by any means except by use of dynamite, poison, electric shocking devices or any stupefying substances.

11.1(2) **Commercial purposes.** This rule shall not authorize the taking of fish for commercial purposes.

[Filed September 20, 1968]

CHAPTER 12
MUSSELS—METHODS AND SEASONS

12.1(109) **Commercial taking.** Mussels may be taken, for commercial purposes, from the public waters of the state subject to the following regulations.

12.1(1) **Seasons.**

a. *Mississippi river.* Entire length—April 15 to September 30 of each year.

b. *Remainder of state.* June 15 to November 30 of each year.

12.1(2) **Methods.**

a. Crowfoot bar designed to catch mussels by the insertion of hooks between the shells of the mussels. Such bar not to exceed twenty feet in length.

b. By hand.

This rule is intended to implement sections 109.39 and 109.100 of the Code.

[Filed June 9, 1970]

CHAPTERS 13 to 25
Reserved for future use

DIVISION OF LANDS AND WATERS

CHAPTER 26
SPECIAL WATER ACTIVITY RULES —
GREEN VALLEY LAKE, UNION COUNTY

26.1(106) For experimental purposes as provided in Chapter 1060, Acts of the Sixty-third General Assembly, the boat-type and the motor horsepower restrictions, as provided in chapter 106 of the Code and subrules 30.1(1) and 30.1(2), do not apply to Green Valley Lake from June 1 to September 10 each year, and the following rules shall be placed in lieu thereof during these periods.

26.2(106) No inboard boats permitted.

26.3(106) No racing-type craft permitted.

26.4(106) For the purposes of this Act, a wake means "any appreciable movement of water created by a motorboat which adversely affects the activity of another person or persons who are involved in activities approved for that area or which may adversely affect the natural features of the shoreline of the lake."

26.5(106) All boats must maintain a no-wake speed on the entire lake between the hours of sunset and 10:30 p.m., also between 4:00 a.m. and 10:00 a.m.

26.6(106) No boating is permitted on the lake between the hours of 10:30 p.m. and 4:00 a.m.

26.7(106) A portion of the west arm of Green Valley Lake shall be designated as a ski zone and shall be marked by controlled area buoys as designated by Iowa's Uniform Waterway Marking System. This designated area shall be referred to as the "ski zone."

26.7(1) Water skiing and general boating are permitted in the designated ski zone between 10:00 a.m. and sunset.

26.7(2) All boats must maintain a no-wake speed when outside the ski zone between the hours of 10:00 a.m. and sunset.

26.8(106) In the ski zone all boats must keep to the right of the "Center of the Channel" buoys which shall be identified by their black and white stripe design as designated by Iowa's Uniform Waterway Marking System.

26.9(106) No one shall be permitted in the water in the ski zone except those persons engaged in water skiing or similar activity.

26.10(106) No person shall be in the water outside the ski zone except in the designated beach area and in accordance with the park rules.

26.11(106) All boats in the ski zone not engaged in water skiing or similar activity shall keep out of the general traffic pattern of the boats pulling skiers.

26.12(106) All persons engaged in water skiing, including the use of surfboard-type devices, shall wear a Coast Guard approved lifesaving device.

26.13(106) In the ski zone no boat shall be operated at speeds greater than five miles per hour when within fifty feet of another craft or person.

26.14(106) No boat shall be operated within one hundred feet of shore at speeds greater than five miles per hour.

26.15(106) Between the dates of September 11 and May 31, inclusive, no motorboats of any type will be permitted on Green Valley Lake

except displacement-type craft equipped with outboard motors not to exceed six horsepower shall be permitted and all departmental rules regulating boating on artificial lakes over one hundred acres in size shall apply to Green Valley Lake.

This rule is intended to implement section 106.31 of the Code.
[Filed July 14, 1970; amended February 10, 1971]

CHAPTER 27
SAFETY EQUIPMENT

27.1(106) The number and type of fire extinguishers required for motorboats within the state of Iowa are as follows:

27.1(1) Fire extinguishers. Fire extinguishers shall be a coast guard approved type as identified in the coast guard publication equipment list (CG-190) by manufacturer's model, number and size, or type bearing the labeling "marine type" by the Underwriter's Laboratories, Inc., which are coast guard approved as per Federal Register 5, November, 1960.

27.1(2) Approved fire extinguishers. Each fire extinguisher is classified, by letter and number, according to the type of fire it may be expected to extinguish, and the size of the extinguisher. The letter indicates the type of fire ("A" for fires in ordinary combustible materials; "B" for gasoline, oil and grease fires). Extinguishers approved for motorboats are hand-portable, of either B-I or B-II classification.

Classification (type-size)	Foam (minimum gallons)	Carbon Dioxide (minimum pounds)	Dry Chemical (minimum pounds)
B-I	1½	4	2
B-II	2½	15	10

The number of approved extinguishers required depends upon the class (or length) of the motorboat. One B-II extinguisher may be substituted for two B-I extinguishers. When the engine compartment of the motorboat is equipped with a fixed (built-in) extinguishing system of an approved type, one less B-I extinguisher is required.

27.1(3) Fire extinguishers required.

Class of motorboat	Without fixed	With fixed
	Fire extinguisher system in machinery space	Fire extinguisher system in machinery space
I (less than 16 ft.)	1 B-I	None
II (16 ft. to under 26 ft.)	1 B-I	None
III (26 ft. to under 40 ft.)	2 B-I or 1 B-II	1 B-I
IV (40 ft. to 65 ft.)	3 B-I or 1 B-II and 1 B-I	2 B-I or 1 B-II

27.2-27.5 Reserved for future use.

27.6(106) Lights on vessels generally. Any vessels on the waters of the state under the jurisdiction of the state conservation commission, while inhabited at anchor or underway and of a class of vessel not requiring special lights for operating while underway between

the hours of sunset and sunrise, shall exhibit a white or amber light which shows all around the horizon between the hours of sunset and sunrise.

27.7(106) White lights for sailboats. Vessels of class I, II, III, and IV, propelled by sail alone between sunset and sunrise shall exhibit

in addition to the combined lantern or separate side lights, a white light so placed as to illuminate the sail and be visible at a distance of at least one-half mile.

27.8-27.12 Reserved for future use.

27.13(106) Buoyant safety equipment. Life preservers, life belts, ring buoys, or similar devices shall be coast guard approved.

[Filed December 19, 1961; amended May 15, 1962, March 17, 1967]

CHAPTER 28 REGISTRATION AND NUMBERING

28.1(106) Emblem placed. The registration emblem will be placed four inches toward the stern of the registration number on each side of the bow of the vessel. On the port side the emblem will be four inches behind the registration number, and on the starboard side four inches in front of the registration number.

All newly registered boats or boats with renewed registrations will receive emblems with the registration certificate.

28.2-28.5 Reserved for future use.

28.6(106) Procedure for application of boat registration number—content. The following information shall be furnished, required, and stated in the application for number.

1. Name and address of owner.
2. Present number (if any).
3. Hull material (wood, steel, aluminum, plastic, other).
4. Type of propulsion (outboard, inboard, other).
5. Length and width of boat.
6. Make and year built (if known).
7. Statement as to use.
8. Signature.
9. Does the boat have a marine toilet (Yes..... No.....).
10. From whom purchased (name and address).

28.7-28.9 Reserved for future use.

28.10(106) Information on certificate. The certificate of number shall show the following:

1. Name and address of boat owner.
2. Number issued.
3. Expiration date.
4. Make, or model, or type of boat.
5. Hull material (wood, steel, aluminum, plastic, other).
6. Length of vessel.
7. Propulsion (inboard, outboard, other).
8. Maximum capacity rating (number of persons).

28.11-28.14 Reserved for future use.

28.15(106) Numbering pattern to be used.

28.15(1) Identification number. The identification numbers awarded under the Iowa system shall consist of three parts. The first part shall consist of the letters "IA" indicating this state. The second part shall consist of not

more than four Arabic numerals. The third part shall consist of not more than two letters.

28.15(2) Example. The parts shall be separated by a hyphen or an equivalent space. As example:

IA-2500-C IA-9875-EA IA 7560 ZZ

28.15(3) Unusable letters. Since the letters "I", "O", and "Q" may be mistaken for Arabic numerals, they shall not be used in the suffix.

28.16-28.18 Reserved for future use.

28.19(106) Display of number on vessel, as to size, block type and contrasting color.

28.19(1) Application of number. The identification number awarded to any vessel under the Iowa numbering system shall be displayed thereon by being:

a. Painted on, or attached to, each side of the bow (i.e., the forward half) of the vessel; read from left to right, and in such position as to provide maximum visibility.

b. In block characters of good proportion not less than three inches in height.

c. Of a color which will contrast with the color of the background (i.e., dark numbers on a light background, or light numbers on a dark background) and so maintained as to be clearly visible and legible.

28.19(2) Restriction. No other number shall be carried on the bow of the vessel.

28.19(3) Purchase of number. Purchase and attachment of these letters and number is the responsibility of the boat owner.

28.20-28.24 Reserved for future use.

28.25(106) Number designating passenger capacity. The passenger capacity of boats as assigned by the commission shall be painted or attached to the starboard side (the right side while in boat and facing the bow) of boat within nine inches of transom in three-inch or larger block numbers in a color contrasting to the boat color so that the numbers ride above the water line when boat is fully loaded.

28.26-28.29 Reserved for future use.

28.30(106) Boats for hire. Each commercial boat operator will be required to number the boat or boats he wishes to operate for hire with block characters of good proportion not less than three inches in height, in the following manner.

Upon making application for a number for commercially operated vessels the following type number will be assigned:

Example IA-1555-E

To identify this vessel as a commercial vessel it will be required that the commercial operator affix an X as the final letter of the suffix:

Example IA-1555-EX

When a commercial operator transfers a vessel to another individual, unless it be to another commercial operator, it will be his

responsibility to remove the second letter from the suffix. (The letter X).

Transferred to

<i>Commercial</i>	<i>Private Individual</i>
IA-1555-XX	IA-1555-X
IA-1555-EX	IA-1555-E

Transferred to

<i>Private</i>	<i>Commercial Operator</i>
IA-1555-A	IA-1555-AX
IA-1555-D	IA-1555-DX

[Filed August 16, 1962; amended April 8, 1963, September 13, 1966]

CHAPTER 29 PASSENGER CAPACITY

29.1(106) Regulations on boat capacities.

All motorboats of conventional construction under eight and one-half feet in length are considered one passenger capacity crafts, eight and one-half to ten feet in length and forty-eight inches and over in width are considered two-passenger capacity crafts.

For all motorboats of conventional design between sixteen and one-half feet and twenty-five and one-half feet the following chart is used for determining passenger capacities. Motorboats above twenty-five and one-half feet are considered on an individual basis.

<i>Length</i>	<i>Width</i>	<i>Passenger Capacity</i>
16'6" - 17'6"	64"+	7
17'6" - 18'6"	68"+	8
18'6" - 19'6"	72"+	9
19'6" - 20'6"	76"+	10
20'6" - 21'6"	80"+	11
21'6" - 22'6"	84"+	12
22'6" - 23'6"	88"+	13
23'6" - 24'6"	92"+	14
24'6" - 25'6"	96"+	15

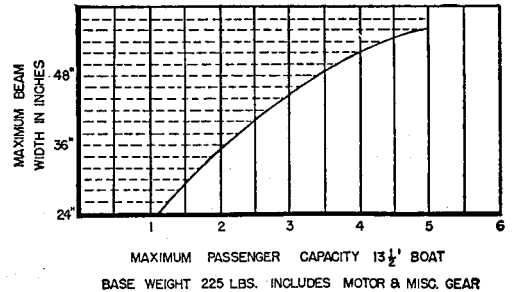
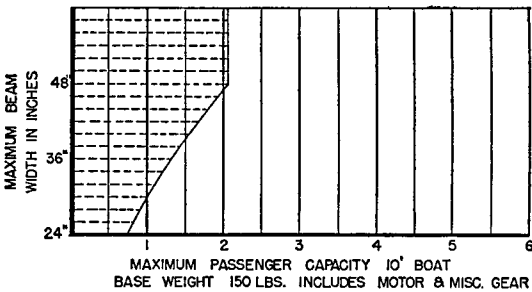
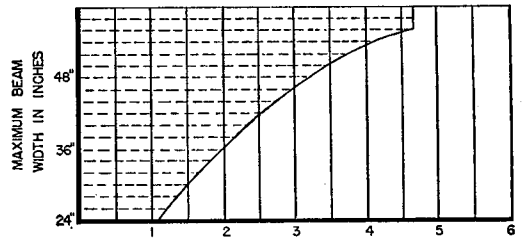
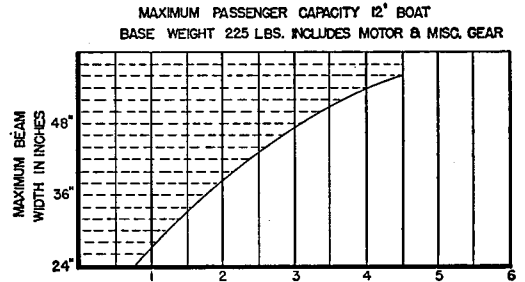
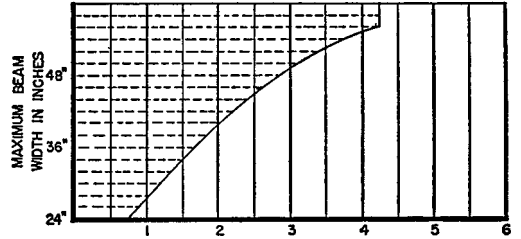
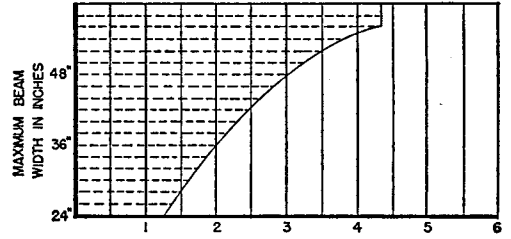
Pontoon boats will be figured on the basis of fifteen square feet of deck space per passenger capacity.

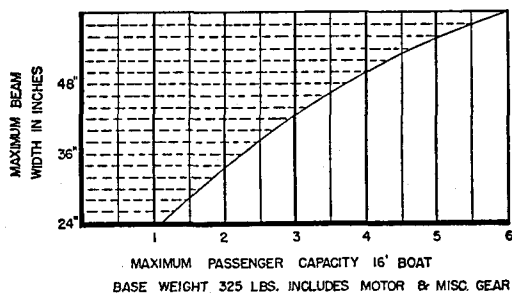
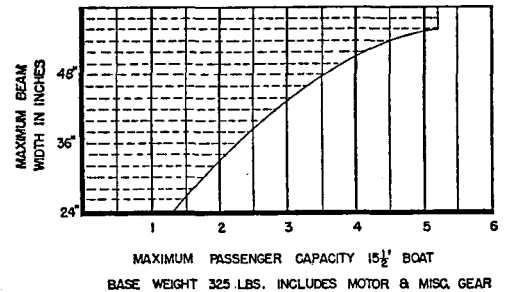
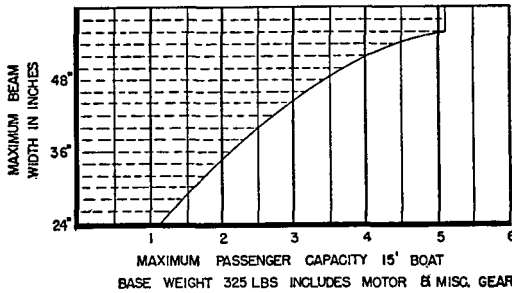
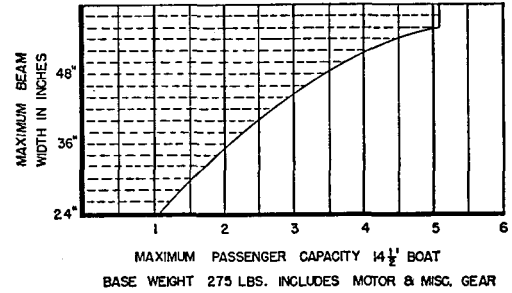
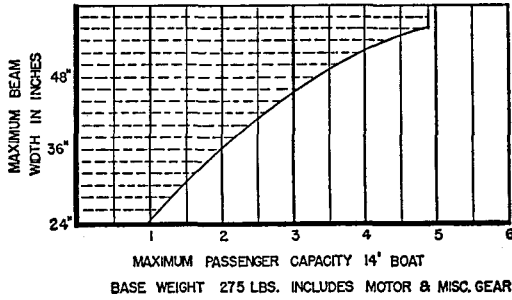
Houseboats are to be figured on the basis of twenty-five square feet of deck space per passenger capacity.

In the loading of boats where children are passengers, the last adult may be substituted by two children if their total combined weight is less than one hundred sixty pounds, this special regulation not to alter the assigned passenger capacity of the vessel.

The following charts will be used in determining passenger capacities of motorboats of conventional design between ten feet and

sixteen and one-half feet in length, with two clarifications—(1) should the passenger capacity result in a fraction less than one-half, the next lower passenger capacity figure shall apply and (2) should the passenger capacity result in a fraction over one-half, the next highest passenger capacity figure shall apply:





Passenger capacities of canoes for hire shall be limited to two passengers per canoe. Passenger capacities of canoes used with motors on waters of the state under the juris-

diction of the state conservation commission are as follows:

Canoe Length in Feet	Passenger Limit
14 feet to 16 feet	2 passenger
16 feet to 19 feet	3 passenger
19 feet and over	4 passenger

Special motor driven canoes will be considered on an individual basis.

Passenger capacities of paddle propelled canoes on all state-owned artificial lakes shall be as follows:

Canoe Length in Feet	Passenger Limit
Under 16 feet	2 passenger
16 feet to 18 feet	4 passenger
Over 18 feet	To be determined on an individual basis.

[Filed December 19, 1961; amended May 15, 1962]

CHAPTER 30 SPEED AND DISTANCE—ZONING

30.1(106) Where restricted. All waters under the jurisdiction of the state conservation commission.

30.1(1) No motorboat shall be operated at speeds greater than five miles per hour when within two hundred fifty feet of another craft traveling at five miles per hour or less.

30.1(2) Motorboats shall maintain a minimum passing or meeting distance of fifty feet when both boats are traveling at speeds greater than five miles per hour.

30.2-30.5 Reserved for future use.

30.6(106) Lakes and impoundments. All lakes and federal impoundments under the jurisdiction of the state conservation commission, except Lake Odessa in Louisa county, Iowa.

30.6(1) No motorboat shall be operated at a speed exceeding five miles per hour unless vision is unobstructed at three hundred feet ahead.

30.6(2) No motorboat shall be operated within three hundred feet of the shore at a speed greater than ten miles per hour.

30.7-30.10 Reserved for future use.

30.11(106) Lake Odessa in Louisa county.

30.11(1) No motorboat shall be operated at a speed exceeding five miles per hour unless vision is unobstructed at three hundred feet ahead.

30.11(2) No motorboat shall be operated at a speed greater than ten miles per hour between April 1 and October 1 yearly, except that portion of Lake Odessa proper lying south of the south line of Section 17 and west and north from the east side of the Sand Run Public Access Area in Section 33, all in Township 74 North, Range 2 West of the 5th P.M.

30.12-30.15 Reserved for future use.

30.16(106) A safety zone is hereby established in Iowa waters above and below all

navigation lock and dam structures on the Mississippi river between the Iowa-Minnesota border and the Iowa-Missouri border. The established zone shall be six hundred feet upstream and one hundred feet downstream from the roller gate or tainter gate section of the structure.

30.16(1) The safety zone does not include the area directly above and below the navigation lock or the auxiliary lock structure.

30.16(2) The safety zone does not include the area directly above and below the solid fill portion of the dam and structure.

30.16(3) The safety zone shall be recognized by the state of Iowa only when plainly marked in accordance with the uniform marking system, as adopted by the state of Iowa, including buoys placed at the outer limits of the restricted safety zone six hundred feet above and one hundred feet below the structure as described in 30.16(106).

30.16(4) No boat or vessel of any type shall enter the established safety zone as recognized by the state of Iowa as described in 30.16(3).

30.17-30.20 Reserved for future use.

30.21(106) Joyce Slough Area. The Joyce Slough Area, a portion of the Mississippi river within the city of Clinton, Iowa, is hereby zoned to be a harbor area and vessels traveling therein shall not travel at speeds in excess of five miles per hour.

30.22-30.25 Reserved for future use.

30.26(106) Massey Slough. Operation of vessels in Massey Slough of the Mississippi river at Massey Station, Dubuque county, Iowa, extending from a northerly to southerly direction from the upper end to the lower end of the slough, encompassing the water in Section 14, Township 88N, Range 3E, of the 5th P.M., tract number NFIA-26M.

30.26(1) Water recreation activities as restricted within posted areas which are marked with approval buoys shall be obeyed.

30.26(2) Buoys approved by the Dubuque county conservation board shall be those of a system adopted by the state conservation commission on a state-wide uniform basis.

30.26(3) All boating accidents shall be reported to the river patrol office in addition to the state conservation commission as prescribed by the Code of Iowa.

30.26(4) All boats underway must maintain a speed of less than five miles per hour in said waters.

30.26(5) Subrule 30.1(1) which reads "No motorboat shall be operated at speeds greater than five miles per hour when within two hundred fifty feet of another craft traveling at five MPH or less" is hereby waived in this particular zoned area.

30.27-30.30 Reserved for future use.

30.31(106) Mitchell county waters. Operation of vessels in Mitchell county on the following impounded waters:

Cedar river from Mitchell Dam, thence upriver to the County "S" Bridge.

Cedar river from the St. Ansgar Mill Dam, thence upriver to the Newberg Bridge crossing Highway 105.

Cedar river from the Otranto Dam upriver to the Great Western Railway Bridge crossing the Cedar river.

The Stacyville Pool, on the Little Cedar river at Stacyville, Iowa.

30.31(1) Water recreation activities as restricted within posted areas which are marked with approved buoys shall be obeyed.

30.21(2) No floating docks, buoys, or man-made obstructions shall be placed in water without approval of the Mitchell county sheriff.

30.31(3) Buoys approved by the Mitchell county sheriff's office shall be those of a system adopted by the state conservation commission on a state-wide uniform basis.

30.31(4) Swimming in areas other than posted areas approved by the Mitchell county sheriff must be within twenty-five feet of shore.

30.31(5) All boats underway must maintain a speed less than five miles per hour if within fifty feet of a moored fishing craft in use.

30.31(6) Boating operation at speeds in excess of ten miles per hour shall not take place prior to 9:00 A.M. and after 6:00 P.M. each day.

30.31(7) The towing of more than one skier by a single boat shall be at the option of the water safety patrol and the determination of the patrol shall be based upon water congestion and safety of operations.

30.31(8) All boating accidents shall be reported to the River Patrol Office in addition to reporting the accident to the state conservation commission.

30.31(9) All water skiers required to wear life jackets, life belts, or preservers.

30.31(10) Any finding or establishment of areas by the Mitchell county sheriff under 30.31(1) to 30.31(3), inclusive, shall be created by petition of interested persons or adjoining landowners filed with Mitchell county sheriff, who shall establish or disallow same within ten days, by written notice of such petitioners. Any party aggrieved by such findings may appeal such determination to the Mitchell county board of supervisors by written notice within ten days of such findings and a hearing shall be held thereon before such board within thirty days thereafter. The decision of such board shall be final and binding.

30.31(11) Subrule 30.1(1) which reads "No motorboat shall be operated at speeds greater than five miles per hour when within two hundred fifty feet of another craft travel-

ing at five miles per hour or less" is hereby waived in this particular zoned area.

30.32-30.36 Reserved for future use.

30.37(106) Maquoketa river. Operation of vessels on the impoundment of the Maquoketa river in Delaware county, Iowa, extending westerly and northerly from the line between Sections 29 and 30 in Delhi township in said county, to the line between Sections 10 and 15 in Milo township in said county which impoundment is sometimes known and referred to as Hartwick Lake or Lake Delhi.

30.37(1) Water recreation activity restrictions shall be obeyed, including restrictions within posted areas which are marked with approved buoys.

30.37(2) No dock or obstruction of any nature shall be placed in the water without first obtaining a permit from the conservation commission.

30.37(3) Application for dock permits and buoy permits shall be made on forms provided by the conservation commission for that purpose.

30.37(4) Reserved for future use.

30.37(5) Every dock or structure shall be constructed and maintained in accordance with the requirements on the permit issued by the conservation commission and shall be removed from the water on or before December 15 of each year.

30.37(6) All buoys shall be those of a system adopted by the state conservation commission and shall be constructed, placed and maintained in accordance with chapter 106 of the Code, and the applicable rules of the conservation commission.

30.37(7) Swimming or wading shall be restricted to an area within twenty-five feet of shore except in special areas approved by the conservation commission and marked by approved buoys.

30.37(8) No motorboat shall be operated at speeds greater than ten miles per hour at any time between the hours from one hour after sunset to one hour before sunrise.

30.37(9) No motorboat shall be operated at a speed which will create appreciable wake or roll when within fifty feet of an occupied craft at anchor or traveling at a no-wake speed.

30.37(10) Boating accidents shall be reported as required in section 106.7 of the Code and the applicable departmental rule.

30.37(11) All water skiers shall wear a life belt or life jacket.

30.37(12) Subrule 30.1(1) shall not apply to this area, as described in 30.37(106).

30.38-30.42 Reserved for future use.

30.43(106) Zoning of off-channel waters of the Wapsipinicon river in Pinicon Ridge Park in Linn county. No motorboat shall be oper-

ated at a speed which will create a wake within the zoned area designated by regulatory buoys or signs on the off-channel waters of the Wapsipinicon river above the dam at Central City, Linn county, Iowa.

The zoned area will be the off-channel waters created in and adjacent to the developed recreation areas of the Pinicon Ridge Park on the west and south bank of the Wapsipinicon river above the dam at Central City, Linn county.

30.44-30.47 Reserved for future use.

30.48(106) Speed restrictions on Lake Manawa. No motorboat shall be operated at a speed greater than five miles per hour within the zoned area, designated by regulatory buoys, on Lake Manawa in Pottawattamie county, Iowa.

30.48(1) Zoned Area 1—South and east of a line from the end of the area known as "Tin Can Dike" to the southern tip of the Les Peterson property on the east shore.

30.48(2) Zoned Area 2—South and west of a line from the south end of the Eleventh Street dike to the north end point of the area known as "Boy Scout Island".

30.48(3) Zoned Area 3—North and east of a line from a point three hundred yards north of the entrance to the lagoon known as the "Novak Lagoon" to the existing bench mark in the west parking area of North Park.

30.48(4) Zoned Area 4—North and west of a line from the north end of the public boat ramps in North Park to the building known as the "Neal Durick boathouse" on the northeast shore.

30.49-30.53 Reserved for future use.

30.54(106) Zoning of Little Wall Lake. No motorboat shall be operated at a speed which will create a wake within the zoned area designated by regulatory buoys on Little Wall Lake in Hamilton county.

The zoned area will not exceed approximately twenty acres in the northeast portion of the lake identified by a line from a point on the high-water mark approximately 296.6 feet west of the southeast corner of the southwest quarter of Section 10, Township 86 North, Range 24 West; thence northwest to the high-water mark which is 775 feet south and 319 feet west of the northeast corner of the northwest quarter southwest quarter of Section 10, Township 86 North, Range 24 West.

[Filed December 19, 1961; amended July 23, 1962, January 14, 1964, March 24, 1964, September 14, 1965, January 11, 1966, September 13, 1966, December 13, 1967, July 16, 1968, August 14, 1968]

CHAPTER 31 NAVIGATION AIDS

31.1(106) Definitions.

31.1(1) *Waterway marker* is any device designed to be placed in, on, or near the water to convey an official message to a boat operator

on matters which may affect health, safety, or well being, except that such devices of the U.S. or any agency of the United States are excluded from the meaning of this definition.

31.1(2) *Regulatory marker* is a waterway marker which has no equivalent in the U.S. Coast Guard system of navigational aids.

31.1(3) *State aid to navigation* is a waterway marker which is the equivalent of a U. S. Coast Guard aid to navigation.

31.1(4) *Buoy* is any device designed to float which is anchored in the water and which is used to convey a message.

31.1(5) *Sign* is any device for carrying a message which is attached to another object such as a piling, buoy, structure or the land itself.

31.1(6) *A display area* is the area on a sign or buoy needed for display of a waterway marker symbol.

31.1(7) *Symbols* are geometric figures such as a diamond, circle, rectangle, etc., used to convey a basic message.

31.2(106) *Waterway markers.* Waterway markers used on the waters of this state shall be as follows:

31.2(1) *State aids to navigation.*

a. A red-topped white buoy, red buoy, or sign shall indicate that side of a channel to be kept to the right of a vessel when entering the channel from the main water body or when proceeding upstream.

b. A black-topped white buoy, black buoy, or sign shall indicate that side of a channel to be kept to the left of a vessel when entering the channel from the main water body or when proceeding upstream.

c. A black and white vertically striped buoy or sign shall indicate the center of a navigable waterway.

d. Buoys or signs in "a" and "b" above shall normally be used in pairs and only for the purpose of marking a clearly defined channel.

e. A red and white vertically striped buoy or sign shall indicate boats should not pass between buoy and nearest shore.

f. State aids to navigation shall be numbered or lettered for identification. Red buoys and signs marking channels shall be identified with even numbers, and black buoys and signs marking channels shall be identified with odd numbers, the numbers increasing from the main water body or proceeding upstream. Buoys and signs indicating the center of a waterway will be identified by letters of the alphabet. All numbers and letters used to identify state aids to navigation shall be preceded by the letters "IA".

g. Letters and numerals used with state aids to navigation shall be white, in block characters of good proportion and spaced in a manner which will provide maximum legibility. Such letters and numerals shall be at least six inches in height.

h. The shapes of state aids to navigation shall be compatible with the shapes established by U. S. Coast Guard regulations for the equivalent U. S. Coast Guard aids to navigation.

i. Where reflectorized materials are used, a red reflector will be used on a red buoy, and a green reflector on a black buoy.

31.2(2) *Regulatory markers.*

a. A diamond shape of international orange with white center shall indicate danger. The nature of the danger may be indicated by words or well-known abbreviations in black letters inside the diamond shape, or above or below it, or both, on white background.

b. A diamond shape of international orange with a cross of the same color within it against a white center without qualifying explanation shall indicate a zone from which all vessels are excluded.

c. A circle of international orange with white center will indicate a control or restriction. The nature of the control or restriction shall be indicated by words, numerals, or well-known abbreviations in black letters inside the circle. Additional explanation may be given above or below it in black letters on white background.

d. A rectangular shape of international orange with white center will indicate information, other than a danger, control or restriction, which may contribute to health, safety or well being. The message will be presented within the rectangle in black letters.

e. Letters or numerals used with regulatory markers shall be black, in block characters of good proportion, spaced in a manner which will provide maximum legibility, and of a size which will provide the necessary degree of visibility.

31.3(106) *Authority to place markers.*

31.3(1) No waterway marker shall be placed on, in or near the waters of the state unless such placement is authorized by the agency or political subdivision of the state exercising jurisdiction, with respect to regulation of boating, over the area where placed, except that the provisions of this section shall not apply to private aids to navigation under the jurisdiction of the U. S. Coast Guard.

31.3(2) Such agency or political subdivision of the state will, prior to authorizing placement, obtain the necessary clearances of federal and state agencies exercising regulatory authority over the area concerned.

31.3(3) The agency or political subdivision of the state authorizing the placement of a waterway marker will inform the state conservation commission of the following:

a. Exact location of the marker, expressed in distance and direction from one or more fixed objects whose precise location is known.

b. The description and purpose of the marker including its identifying number, if any.

31.4(106) Maintenance of waterway markers. Waterway markers will be maintained in proper condition, or be replaced or removed.

31.5, 31.6 Reserved for future use.

31.7(106) Display of waterway markers.

31.7(1) A waterway marker may be displayed as a sign or a fixed support, as a buoy bearing a symbol on its surface, or as a sign mounted on a buoy.

31.7(2) When a buoy is used to carry a symbol on its surface, it will be white, with bands of international orange on the top, and at the bottom above the water line.

31.7(3) A buoy whose sole purpose is to carry a sign above it will be marked with three bands of international orange alternating with two bands of white, each band occupying approximately one-fifth of the total area of the buoy above the water line, except where the sign itself carries orange bands; however, nothing in these rules shall be construed to prohibit the mounting of a sign on a buoy which has been placed for a purpose other than that of carrying a sign.

31.7(4) When symbols are placed on signs, a suitable white background may be used outside the symbol.

31.8(106) Specifications for waterway markers.

31.8(1) The size of a display area shall be as required by circumstances, except that no display area shall be smaller than one foot in height. The size shall increase in increments of six inches; provided, however, that this specification for increase in increments shall not apply to markers in existence prior to the adoption of this rule.

31.8(2) The thickness of the symbol outline shall be one-tenth of the height of the display area.

31.8(3) The outside width of the diamond, the inner diameter of the circle, and the average of the inside and outside widths of a square shall be two-thirds of the display area height.

31.8(4) The sides of the diamond shall slope at a thirty-five degree angle from the vertical on a plane surface. Appropriate adjustments for curvature may be made when applied to a cylindrical surface.

31.8(5) Materials. Waterway markers shall be made of materials which will retain, despite weather and other exposures, the characteristics essential to their basic significance, such as color, shape, legibility and position. Reflectorized materials may be used.

31.9(106) Waterway marking devices. All waters under the jurisdiction of the state conservation commission.

31.9(1) Mooring buoys shall be white with a two-inch blue reflectorized band clearly vis-

ible above the water; the buoy shall extend a minimum of twelve inches above the surface of the water, and shall have at least one square foot of surface visible from any direction.

31.9(2) Placement of mooring buoys shall be within two hundred fifty feet of shore, except under certain circumstances the commission may require them to be placed at a lesser distance. Requirements for mooring buoys may be waived by the director under special circumstances.

31.9(3) Permanent race course marker buoys shall be white with a ball of international orange, of at least twelve inches in diameter. The buoy shall extend a minimum of two feet above the surface of the water and shall be at least sixteen inches in diameter, and shall be lighted during periods of low visibility, and during the hours of darkness.

31.9(4) Markers such as mooring buoys and race course markers will be processed in the same manner as waterway markers, and authorization for their placement will be obtained from the agency or political subdivision of the state exercising jurisdiction with respect to regulation of boating, and such agency or political subdivision will assure that proper clearances for their placement are obtained from state and federal agencies exercising regulatory authority over the area concerned.

31.9(5) Such markers shall not be of a color, shape, configuration or marking which could result in their confusion with any federal or state aid to navigation or any state regulatory marker, and shall not be placed where they will obstruct navigation, cause confusion, or constitute a hazard.

31.10(106) The diver's flag.

31.10(1) A red flag with a white diagonal running from the upper left hand corner to the lower right hand corner (from mast head to lower outside corner) and known as the "diver's flag" shall, when displayed on the water, indicate the presence of a diver in the water in the immediate area.

31.10(2) Recognition of this flag by regulation will not be construed as conferring any rights or privileges on its users, and its presence in a water area will not be construed in itself as restricting the use of the water area so marked.

31.10(3) Operators of vessels will, however, exercise precaution commensurate with conditions indicated.

31.10(4) This flag shall be displayed only when diver activities are in progress, and its display in a water area when no diver activities are in progress in that area will constitute a violation of this rule and of chapter 106 of the Code.

[Filed June 21, 1962; amended January 11, 1966]

CHAPTER 32
REPORTING OF BOATING
ACCIDENTS

32.1(106) Accident report. A written report is required when an accident occurs on board, or involving any vessel in addition to those stipulated in the law. The disappearance of any person from on board under circumstances which suggest any possibility of their death or injury.

32.2(106) Procedure. These reports shall be filed in triplicate with the state conservation commission in writing.

32.3(106) Contents. The report shall include the following information:

1. The numbers or names of the vessels involved, or both.
2. The locality where the accident occurred.
3. The date and time where the accident occurred.
4. The weather and lake or river conditions at time of accident.
5. The name, address, age, and boating experience of the operator of the reporting vessel.
6. The name and address of the operator of the other vessel involved.
7. The names and addresses of the owners of vessels or other property involved.
8. The names and addresses of any person or persons involved or killed.
9. The nature and extent of injury to any person or persons.
10. A description of damage to any property (including vessels) and estimated cost of repairs.
11. A description of the accident (including opinions as to the causes).
12. The length, propulsion, horsepower, fuel, and construction of the reporting vessel.
13. Names and addresses of known witnesses.
14. The specific number of persons on board the reporting vessel at the time of the accident.

[Filed September 13, 1966]

CHAPTERS 33 to 43
Reserved for future use

CHAPTER 44
FISHING SHELTERS

44.1(111) When regulated. For the period beginning on the first day of November of each year and ending on the twentieth day of February of the following year, the following rules pertaining to the building or erection of fishing shelters for noncommercial purposes shall apply to all such buildings or structures placed on or over state-owned lands or waters under the jurisdiction of the state conservation commission:

44.1(1) A permit, for which no charge or fee will be made, must be secured from the

state conservation commission for the erection of all buildings or structures used as fishing shelters on or over state-owned lands or waters.

44.1(2) All such buildings must be of a type and made from materials approved by the state conservation commission.

44.1(3) The permit number must be painted legibly in a color contrasting to the background on all sides of the shelter in numerals at least six inches high.

44.1(4) Failure to remove the building or structure and materials used in its construction from state-owned property on or before February twentieth of each year shall be deemed just cause for prosecution as provided for in section 114.4 of the Code.

44.1(5) Information containing the name and address of owner must be placed on door of shelter in a legible and durable manner.

44.1(6) Structures may not be locked when in use.

[Filed September 22, 1961]

CHAPTER 45
STATE PARKS AND PRESERVES

45.1(111) Opening time. Except by arrangement or permission granted by the director or his authorized representative the following rules shall apply; all persons shall vacate all state parks and preserves before 10:30 o'clock P.M., each day, except authorized campers in accordance with section 111.46 of the Code, and no person or persons shall enter into such parks and preserves until 4:00 o'clock A.M. the following day.

CHAPTER 46
STATE PARK AND PRESERVE WILDLIFE
REFUGES

46.1(109) Established. The following state parks and preserves under the jurisdiction of the Iowa state conservation commission are established as wildlife refuges under the provisions of section 109.5 of the Code for the calendar year 1962 and thereafter unless otherwise altered or amended by process of law:

<i>PARK OR PRESERVE</i>	<i>COUNTY</i>
A. A. Call	Kossuth
Backbone	Delaware
Beeds Lake	Franklin
Bellevue	Jackson
Bixby	Clayton
Black Hawk Lake	Sac
Bob White	Wayne
Browns Lake	Woodbury
Brush Creek Canyon	Fayette
Clear Lake	Cerro Gordo
Cold Springs	Cass
Dolliver Memorial	Webster
Eagle Lake	Hancock
Echo Valley	Fayette

Fort Atkinson Winneshiek
 Fort Defiance Emmet
 Frank A. Gotch Humboldt
 Geode Des Moines—Henry
 George Wyth Black Hawk
 Green Valley Union
 Gull Point (Okoboji Areas) Dickinson
 Heery Woods Butler
 Inn Area (Okoboji Areas) Dickinson
 Kearny Palo Alto
 Lacey-Keosauqua Van Buren
 Lake Ahquabi Warren
 Lake Anita Cass
 Lake Darling Washington
 Lake Keomah Mahaska
 Lake MacBride Johnson
 Lake Manawa Pottawattamie
 Lake of Three Fires Taylor
 Lake Wapello Davis
 Ledges Boone
 Lewis and Clark Monona
 Lost Island Palo Alto
 McIntosh Woods Cerro Gordo
 McGregor Heights Clayton
 Maquoketa Caves Jackson
 Margo Frankel Woods Polk
 Mill Creek O'Brien
 Mini-Wakan Dickinson
 Nine Eagles Decatur
 Oak Grove Sioux
 Oakland Mills Henry
 Okamanpedan Emmet
 Orleans Beach Dickinson
 Palisades-Kepler Linn
 Pammel Madison
 Pikes Peak (McGregor Area) Clayton
 Pikes Point Dickinson
 Pilot Knob Hancock
 Pine Lake Hardin
 Pioneer Mitchell
 Point Ann Clayton
 Prairie Rose Shelby
 Preparation Canyon Monona
 Red Haw Hill Lucas
 Rice Lake Worth—Winnebago
 Rock Creek Jasper
 Rush Lake Palo Alto
 Sharon Bluffs Appanoose
 Silver Lake Delaware
 Spring Lake Greene
 Springbrook Guthrie
 Steamboat Rock Hardin
 Stone Park Woodbury
 Trappers Bay Dickinson
 Twin Lakes Calhoun
 Union Grove Tama
 Viking Lake Montgomery
 Walnut Woods Polk
 Wanata Clay
 Wapsipinicon Jones
 Waubonsie Fremont

Wild Cat Den Muscatine
 Abbie Gardner Sharp Dickinson
 Arnold Park Pier Dickinson
 Barkley Memorial Boone
 Fish Farm Mounds Allamakee
 Galland School Lee
 Gitchie Manitou Lyon
 Indian Village O'Brien
 Lennon Mills Guthrie
 Pillsbury Point Dickinson
 Plum Grove Johnson
 Turkey River Guthrie—Clayton
 Woodman Hollow Webster

[Filed October 25, 1962]

CHAPTERS 47 to 49
 Reserved for future use

CHAPTER 50
 SNOWMOBILES

50.1 (321G) Accident report. Whenever any snowmobile is involved in an accident resulting in injury or death to anyone or property damage amounting to fifty dollars or more, the operator shall file a report of the accident with the commission within forty-eight hours. Said report shall be on forms provided by the commission, completed and submitted in duplicate, including the following information:

1. Registration numbers of snowmobiles involved.
2. The locality where the accident occurred.
3. Date and time of accident.
4. Weather and visibility conditions.
5. Name, address, age and snowmobile operating experience of the reporting snowmobile operator.
6. Name(s) and address(es) of owner(s) of snowmobile(s) involved, and any other witness(es).
7. Name(s) and address(es) of operator(s) of other vehicle(s) involved.
8. Safety equipment being worn by operator and passenger(s).
9. Name(s) and address(es) of any person(s) injured or killed.
10. The nature and extent of injury to any person(s).
11. Description of damage to any property (including snowmobiles) and estimated cost of repair.
12. Description of the accident (including opinions as to the causes.)
13. Horsepower, make and year of each snowmobile involved.
14. Estimated speed of vehicles involved.
15. Whether alcohol was a contributing factor.
16. Whether snowmobile was rented or privately owned.

This rule is intended to implement section 321G.10 of the Code.

[Filed January 5, 1971]

DAIRY INDUSTRY COMMISSION

CHAPTER 1 EXCISE TAX

1.1(179) The first buyer of milk or cream charged with the collection of the excise tax under chapter 179 of the Code, shall keep a complete and accurate record of such purchases during the period of May 1 to June 30, inclusive, each year. Such records include (1) date of purchase, (2) name of producer, and

(3) pounds of milk or cream purchased from each producer. Such records shall be preserved for a period of two years.

1.2(179) The return required by section 179.7 shall be filed with the dairy industry commission on or before August 1 of each year, on forms furnished by the commission, or ones substantially similar thereto.

[Filed March 26, 1959]

DENTISTRY BOARD, STATE

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CHAPTER 1
GENERAL PROVISIONS

1.1(153) Definitions. For the purpose of the interpretation of the following rules:

1.1(1) "Board" shall mean the Iowa state board of dentistry.

1.1(2) "Department" shall mean the department of health, state of Iowa.

1.1(3) "Rule" shall mean a requirement, procedure, or standard of general application prescribed by the board relating to either the administration or enforcement of chapter 153 of the Code or the regulation of the practice of dentistry and dental hygiene.

1.1(4) "Order" shall mean a requirement, procedure or standard of specific or limited application adopted by the board relating to any matter the board is authorized to act upon, including the professional conduct of licensees hereunder and the examination for licensure and licensure of any person hereunder.

1.1(5) "Examination planning meeting" shall mean that meeting of the board held at the time and place of the annual meeting of the Iowa Dental Association.

1.1(6) "Examination meeting" shall mean those meetings of the board held in Iowa City for the purpose of examining candidates for licensure as dentists or as dental hygienists, the time and place of such examination meetings to be fixed by the board as near to the spring commencement of the University of Iowa as may be practicable. The time and place of such examination meeting shall be published in the Journal of the American Dental Association at least sixty days prior to such examination meeting.

1.1(7) "Annual meeting" shall mean that meeting of the board held each year in Iowa City in conjunction with the examination meeting for the purpose of electing officers for the ensuing year and conducting such other business as may properly come before the board.

1.1(8) "Special meetings" shall mean those meetings of the board other than above provided for, which special meetings, including telephone conferences, shall be held at such times and places and upon such notice, written or oral, as the chairman, secretary or a majority of the board deems necessary.

1.1(9) Three members of the board shall constitute a quorum for the purpose of conducting the business of the board. Sturgis Standard Code of Parliamentary Procedure shall, when not in conflict herewith, govern the deliberations of the board.

1.1(10) "Chapter" shall mean Dental Practice Act of Iowa.

1.1(11) The board interprets "practicing in Iowa" as used in section 153.11 of the Code

to mean rendering a professional service in this state either as an employee or an independent contractor for any valuable consideration. Any licensee residing in Iowa eligible for the five-dollar renewal fee provided for therein shall be required to certify in writing to the board that he is not or will not be "practicing in Iowa" during the time to which such renewal relates, which status shall be shown on the licensee's record and continued thereon unchanged until otherwise directed by the board.

1.2(153) Organization of board. The board at its annual meeting shall organize for the ensuing year, selecting from its own membership a chairman, vice-chairman, secretary, treasurer and such other officers as it may from time to time deem necessary, which officers shall assume their duties July 1. The vice-chairman shall prepare and submit an annual budget to the board at such time as the board designates.

1.3(153) Tenses, gender and number. For the purposes of these rules, the present tense includes the past and future tenses, and the future, the present and past, and the past, the present and future; the masculine gender includes the feminine and the neuter, and the feminine, the masculine and neuter; and the neuter, the masculine and feminine; and the singular includes the plural, and the plural, the singular, as the context requires.

1.4(153) Fee splitting prohibited. No individual or group of individuals engaged in the practice of dentistry in the state of Iowa shall, except as authorized by the provisions of this rule, rule 5.2(4), or section 153.32(8), split, divide or allocate, either directly or indirectly with any dentist or layman other than an associated licensed dentist or licensed hygienist practicing in the same office, any fees earned in rendering dental service; provided, however, that this rule shall not be interpreted to prevent an employer from paying an employee in the regular course of employment.

1.5(153) Limitation on signs. No dentist shall use letters of a size greater than six inches in height as part of any sign, name plate, or other professional public announcement.

1.6(153) Number of signs limited. No dentist shall display simultaneously at his place of business or elsewhere more than two signs, name plates or other professional announcements, such signs to employ only lettering to show his name, address, and professional title or degree and specialty, together with his office hours and telephone number; provided, however, that a dentist may use his name and address and designate his office hours on the building directory and the entrance door to his office.

1.7(153) Sign illumination limited. No dentist shall use lighted signs, electric, neon or otherwise, nor any glaring lights to illuminate signs, posters or any other professional announcement.

1.8(153) Dentist's presence required. No dentist shall practice dentistry in any place or location where dental services are rendered where the name or names on the door, window, wall, directory, or any sign whatsoever, shall indicate or tend to indicate that such place or location is owned or operated by any person not actually practicing dentistry therein; provided, however, that in the event that the dentist whose name so appears on such window, wall, or sign, shall have terminated his practice, this rule shall not be applicable to any other dentist practicing in such establishment for twelve months immediately following such termination. No dentist shall have a proprietary interest in more than three places of business where dentistry is practiced nor display his license or annual renewal certificate therein.

1.9(153) Public announcements and professional cards limited. A dentist shall make use of no announcement through any media, means, agency or device of an advertising nature, except he may advise his patients of record by letter or otherwise, or he may publicly announce only by way of newspaper the opening, relocation or termination of his practice of dentistry or professional association, which announcement shall state only his name, degree, specialty, as recognized by the board, office location where he is actually engaged in practice, office hours, telephone numbers and may be published in no more than seven consecutive publications in the same newspaper. Such announcement shall be limited to a space equivalent to a two-column width and three inches in length. The board interprets a professional card, to be either the announcement above-described and limited or a card one column wide and one inch in length. No shaded or solid background or any other attention-getting device shall be allowed.

1.10(153) Attention-getting signs prohibited. No person licensed by the board shall employ any advertising sign, whether same be a projecting sign or otherwise, which shall by its design, intent or character, reasonably appear to be principally attention getting in nature as distinguished from merely imparting the information contained thereon to the general public.

1.11(153) Official forms. The following board forms are the official forms to be used by the board for the purposes respectively indicated therefor:

1.11(1) Board Form 1—Dental license (8½ x 11).

1.11(2) Board Form 2—Dental hygienist's license (8½ x 11).

1.11(3) Board Form 3—Grade average of applicant's for licensure for dentistry (yellow paper).

1.11(4) Board Form 4—Grade form average of applicants for dental hygiene (blue paper).

1.11(5) Board Form 5—Ballot for mail vote.

1.11(6) Board Form 6—Dentist's application for license.

1.11(7) Board Form 7—Hygienist's application for license.

1.11(8) Board Form 8—Notice to applicant of results of his examination (used for both dentists and hygienists).

1.11(9) Board Form 9—Letter to accompany notice of applicant of examination results.

1.11(10) Board Form 10—Notice of renewal fee and application for renewal of license to practice dentistry.

1.11(11) Board Form 11—Application for renewal of license to practice dental hygiene.

1.11(12) Board Form 12—Renewal certificates for dentists and hygienists.

1.11(13) Board Form 13—Information for applicants for examination in dentistry and dental hygiene.

1.11(14) Board Form 14—Examination instructions to state board candidates.

1.11(15) Board Form 15—Prosthetic design forms.

1.11(16) Board Form 16—Lettersize letterhead stationery.

1.11(17) Board Form 17—Letterhead envelopes.

1.11(18) Board Form 18—Large size envelopes—license size.

1.11(19) Board Form 19—Envelopes to mail renewal certificate (small window size).

1.11(20) Board Form 20—Envelopes to mail renewal applications (large window size).

1.11(21) Board Form 21—Application for reciprocity for dentists.

1.11(22) Board Form 22—Information to dentists for reciprocity.

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1.11(25) Board Form 25—Receipts acknowledging payment of fees.

1.11(26) Board Form 26—Registry of dentists and hygienists.

1.11(27) Board Form 27—Directory, published biennially.

1.11(28) Board Form 28—Seal of board.

1.11(29) Board Form 29—Temporary faculty license.

1.11(30) Board Form 30—Resident dentist license.

1.11(31) Board Form 31—Application for reinstatement of license.

1.11(32) Board Form 32—Notice of failure to renew.

1.11(33) Board Form 33—Voucher.

1.11(34) Board Form 34 — Certificate of nonpractice.

1.12(153) Displaying license and annual renewal certificate. The license and current annual renewal certificate must be prominently displayed by each licensee at the principal office of employment. An additional certificate shall be obtained from the secretary of the board whenever a dentist practices at more than one address and same shall be displayed therein, but no more than two such additional certificates shall be issued. A fee of five dollars will be charged for each additional certificate.

1.13(153) Notice required of change of address. Every licensee shall upon changing his principal office and within ten days thereafter furnish the secretary of the board with his new address.

1.14(153) Reinstatement application. All applications for reinstatement under section 153.12 and for reinstatement of a hygienist's license shall be made on Board Form No. 31 and filed with the secretary of the board, together with the then current annual license fee and a penalty fee of ten dollars. The applicant shall present himself for the clinical examination prescribed herein at such time and place fixed by the board, unless the board expressly waives such examination for good cause shown by the applicant and upon presentation of satisfactory and convincing evidence of his knowledge and information regarding current techniques, procedures, materials and theories obtaining in the practice of dentistry. Each applicant shall present the written recommendation of two active practitioners of dentistry licensed in Iowa who are and have been members of the American Dental Association for one or more years last past that he be reinstated, which recommendation shall be unqualified and shall specifically detail the personal knowledge each has of the applicant, his professional and moral suitability for reinstatement and the reason for so recommending. The application shall also include the following:

1.14(1) Name and current residence of applicant.

1.14(2) Date of admission to practice in Iowa and license number for which reinstatement is sought.

1.14(3) Dates and places of practice, and reasons for seeking reinstatement and why license was not maintained.

1.14(4) Names of all professional (dental) organizations in which membership is or was held, and dates thereof.

1.14(5) List of all study clubs and professional meetings attended, with dates and places thereof.

1.14(6) List of all postgraduate courses taken, with dates and places thereof.

1.14(7) Other states in which licensed, and the identifying number of each license.

1.15(153) The board shall maintain as a part of its records the following information:

1.15(1) A list of applicants who have failed the board's examination, but who are still eligible for re-examination.

1.15(2) Alphabetical lists of all licensees to practice dentistry in Iowa who are and who are not in good standing with the board.

1.15(3) Alphabetical lists of all licensees to practice dental hygiene in Iowa who are and who are not in good standing with the board.

1.15(4) Alphabetical lists of dentists registered in but not practicing in Iowa.

1.15(5) An alphabetical list of resident dentist licensees.

1.15(6) An alphabetical list of dental college faculty permit holders.

1.15(7) An alphabetical list of licensees in federal services.

CHAPTER 2

APPLICATIONS FOR LICENSURE

2.1(153) Applications to practice dentistry. Any person desiring to take the examination for licensure to practice dentistry within the state of Iowa must first present to the board an application and credentials, as prescribed by chapter 153 of the Code and shall conform to the following rules of the board:

2.1(1) An application on a form, hereinafter referred to as Board Form No. 6, furnished by the board must be completely filled out.

2.1(2) The completed application shall be filed with the board not later than thirty days prior to the date set for the beginning of the examination for which application is made.

2.1(3) The applicant shall furnish satisfactory evidence of having graduated from an accredited dental college which shall have been approved by the board.

2.1(4) For identification purposes, the applicant shall furnish one notarized, unmounted passport size photograph, 3"x3", taken not more than twelve months before date of application.

2.1(5) The fee of fifty dollars as fixed by chapter 153 of the Code shall accompany the application. The fee of fifty dollars will be returned to those applicants who are found to be ineligible to take the examination.

2.1(6) The applicant shall furnish a testimonial of good moral character by the dean or other authorized representative of the dental school from which the applicant graduated,

and if he is a member of the American Dental Association he shall furnish a like testimonial by the president or secretary of the constituent or component society or its equivalent, and certification by the secretary of the board of dental examiners of the state in which he may be licensed.

The board may require from an applicant or obtain from other sources such other information pertinent to the character, education and experience of the applicant as it may deem necessary in order to pass upon the applicant's qualifications.

2.1(7) The board shall compile the names of the successful candidates on a suitable and appropriate form, which shall be known as Board Form No. 3, and when so compiled the same shall become a permanent part of the records maintained by said board and available to public inspection at all reasonable hours.

2.2(153) Verification of application. Every applicant shall sign his application and shall swear or affirm to the truth of the statements contained therein before a notary public or other person authorized by law to administer oaths.

2.3(153) Rejection of incomplete application. Incomplete applications shall be returned to the applicant with the tendered fee, together with a statement setting forth the reasons for such rejection.

2.4(153) Applications to practice dental hygiene. Any person desiring to take examination for licensure to practice dental hygiene must present an application and credentials as prescribed by chapter 153 of the Code and shall conform to the following rules of the board:

2.4(1) An application on a form, hereinafter referred to as Board Form No. 7, furnished by the board must be completed in all respects.

2.4(2) The completed application shall be filed with the board not later than thirty days prior to the date set for the beginning of the examination for which application is made.

2.4(3) The applicant shall furnish a certified photostatic copy of a diploma or certificate in dental hygiene from an accredited school of dental hygiene approved by the board.

2.4(4) The applicant shall present to the board a certificate duly issued by the National Board of Examiners for Dental Hygienists evidencing the successful completion of the examination administered by said national board.

2.4(5) For identification purposes the applicant shall furnish one notarized, unmounted passport size photograph, 3" x 3", taken not more than twelve months before the date of application.

2.4(6) A fee of twenty-five dollars shall accompany the application.

2.4(7) The applicant shall furnish evidence of good moral character satisfactory to the board, in addition to the requirements prescribed in section 153.8 of the Code. For the purpose of chapter 153 of the Code, an accredited school of dental hygiene shall include only those schools of dental hygiene now or hereafter approved by the board.

2.5(153) The board shall compile the names of the successful candidates on a suitable and appropriate form, which shall be known as Board Form No. 4, and when so compiled the same shall become a permanent part of the records maintained by said board and available to public inspection at all reasonable hours.

2.6(153) No information regarding the grades of the respective applicants shall be divulged by the board until the applicants themselves have been notified by the board.

CHAPTER 3 EXAMINATIONS

3.1(153) Examination procedure, dentists. The following rules are deemed by the board to provide for an examination sufficiently thorough to test the fitness of the applicant and same shall govern the conduct of examination and be strictly adhered to throughout the entire examination. An examinee who violates any of the rules, regulations or instructions applicable to him may be declared by the board to have failed the examination.

3.1(1) Unless otherwise notified in writing, applicants must appear at the appointed hour on the first day of the examination at the college of dentistry in Iowa City as fixed by the board, at which time the board shall assign each applicant a number for identification purposes during such examination.

3.1(2) The ability of an examinee to read and interpret instructions shall be evaluated and considered by the board as a part of the examination.

3.1(3) Any examinee who gives or receives unauthorized assistance in any portion of the examination may be dismissed from the examination.

3.1(4) An examinee must be present punctually at the time designated for commencing each session of the examination.

3.1(5) If the examinee fails the first examination and desires to take a second examination, he shall notify the board at least thirty days prior to the first day of the next examination, and he shall be required to certify that the material statements contained in his original application are currently true and correct.

3.1(6) The examinee must attain an average grade of not less than seventy-five percent in the clinical portion of the examination. The grade of the theoretical portion of the examination will be ascertained by averaging

the grades of Part I and Part II of the examination administered by the National Board of Dental Examiners.

3.1(7) The secretary of the board will assign board members to the specific operations in the clinical portion of the examination that they are to grade.

3.1(8) The examinee must furnish his own patients, all needed materials, supplies and instruments; and the director of the dental clinic at the college of dentistry may aid in the procurement of patients.

3.1(9) The general clinical requirements hereinafter prescribed for the examination may be confirmed, added to, modified or changed in any particular, without notice, as the board in its discretion shall deem advisable for the purpose of sufficiently evaluating and testing the fitness of the examinee to practice dentistry.

3.1(10) All operations must be performed by the examinee in the presence of the board members assigned for such purpose. The examinee shall be informed as to which board member has been designated to grade the required operation.

3.1(11) Notwithstanding the educational experience of any examinee, the board may deduct points from the grade of the examinee in all restorations where the normal contact and tooth form has not been restored and where all margins have not been carried to self-cleansing areas.

3.1(12) The board may deduct points from the grade of the examinee if the cases selected do not have approximating contacting teeth.

3.1(13) Each examinee may be required to perform clinical operations as follows, which operations must be previously approved by one or more board members:

a. Oral diagnosis. Charting, treatment planning and slide examination.

b. Operative:

(1) Gold foil restoration, Class 2, 3 or 4 (Class 5, only if specifically authorized).

(2) Amalgam restoration, Class 2.

c. Crown and bridge: Cast gold crown (or a three-quarter crown only if specifically authorized).

d. Prosthetics. Impression, cast, design of partial denture on surveyed cast and on Board Form No. 15, with written instructions to technician.

3.2(153) Scope of examination, dentists.

3.2(1) All applicants, except as otherwise provided herein, shall present a certificate duly issued over the signature of the secretary of the National Board of Dental Examiners evidencing successful completion of Part I and II of the examination administered by said National Board of Dental Examiners; such national board certificate shall be required, and the board no longer shall administer an ex-

amination on theory unless otherwise provided.

3.2(2) Examinees who otherwise qualify but who have failed in one or more subjects of the national board examination may be admitted to the clinical examination, but the license will be withheld until certification of Part II is received from the secretary of said National Board of Dental Examiners.

3.2(3) At the discretion of the board, any dentist who has lawfully practiced dentistry in another state or territory for five years may be exempted from presenting a certificate evidencing successful completion of the examination administered by said National Board of Dental Examiners.

3.2(4) All examinees shall be prepared to be examined for general knowledge of the chapter.

3.3(153) Examination procedure, hygienists. The following rules must be strictly adhered to throughout the entire examination and shall govern the conduct of the examinations. An examinee who violates any of the rules, regulations, or instructions applicable to him may be declared by the board to have failed the examination.

3.3(1) Each applicant shall be required to do two complete oral prophylaxes.

3.3(2) Each applicant for licensure as a hygienist shall be required to give a demonstration of his skill in removing lime deposits, accretions and stains from exposed surfaces of the teeth and from the root surfaces to the depth of the attached gingiva, polishing the teeth and making instrumental examination for caries, and charting the mouth and teeth in as many cases as may be designated by the board during the examination.

3.3(3) Each applicant may further be required to perform such other practical demonstrations as the board in its discretion may specify during the course of examination, which may include but shall not necessarily be limited to the following:

a. Take full mouth, plus bite-wing X-rays. These X-rays to be mounted and presented to an examiner at the time of the oral interview.

b. Give a presentation of procedures for mouth care including the use of models and brushes to demonstrate the use of toothbrushes.

c. Demonstrate the care and sharpening of instruments used by dental hygienists.

d. Pouring of cast from impression that will be provided.

e. Recognition of errors in X-ray technique from projected slides.

f. Such other tests as may be determined by the board.

3.3(4) An average of seventy-five percent constitutes a passing grade in the clinical part of the examination.

3.4(153) Scope of examination, hygienists.

3.4(1) In grading such practical demonstrations, the following will be observed and evaluated by the board:

- a. Consideration for patient.
- b. Position of chair.
- c. Neatness of operator and operation.
- d. Instrumentation.
- e. Operation of engine.
- f. Use of medicaments.
- g. Gum laceration or injury.
- h. Sharpness of instruments.
- i. Final results.

CHAPTER 4

AUXILIARY PERSONNEL

4.1(153) Definitions.

4.1(1) The term "dental assistant" means any person other than a hygienist or dental laboratory technician who acts by assisting a dentist in rendering dental services to a patient.

4.1(2) The term "hygienist" means a person holding a license as a dental hygienist issued by the board pursuant to the provisions of chapter 153.

4.1(3) The term "dental laboratory technician" as used in these rules shall include all legal entities other than a licensed dentist who fabricates, constructs, makes, alters or repairs oral prosthetic appliances solely and exclusively for a licensed dentist and under his supervision or direction.

4.2(153) Dental assistants. Dental assistants may perform all services at the direction and under the supervision of the licensed dentist, except the following services:

4.2(1) Any and all removal of or addition to the hard or soft tissue of the oral cavity.

4.2(2) Any and all diagnosis of or prescription for or treatment or attempt to correct by any medicine, appliance, or method, any disease, disorder, lesion, injury, deformity, or defect of the oral cavity, teeth, gums or maxillary or mandibular arches of the human being.

4.2(3) The administration of anesthetics.

4.2(4) A prophylaxis.

4.2(5) Making an impression of the maxillary or mandibular arch, or any part thereof.

4.3(153) Practice of dental hygiene. In assisting the members of the dental profession in providing oral health care, the following services performed by the dental hygienist shall be deemed:

4.3(1) *Educational:* Issuing written and oral instructions for optimal oral health, including the teaching of proper brushing techniques and interdental stimulation.

4.3(2) *Therapeutic:* Application or administration of medicaments prescribed by a

licensed dentist, and a complete oral prophylaxis of all surfaces of the teeth to the depth of the attached gingiva.

4.3(3) *Preventive:* The topical application of medicaments and other methods for caries control.

4.3(4) *Diagnostic:* Making of X-ray exposures of teeth and surrounding tissues; obtaining and recording vital medical and dental history, including the charting of carious lesions, periodontal pockets and other abnormal conditions; and making impressions for study models.

All such services shall be performed under the supervision of a licensed dentist.

4.4(153) Advertising and soliciting dental service prohibited. No auxiliary personnel, including the dental assistant, hygienist and dental laboratory technician as defined in 4.1(153) shall advertise, solicit, represent or hold himself or itself out in any manner to the general public that he or it will furnish, construct, repair, or alter prosthetic, orthodontic or other appliances, with or without consideration, to be used as substitutes for or as a part of natural teeth or associated structures or for correction of malocclusions or deformities, or that he or it will render any other dental service.

4.5(153) Unlawful practice by auxiliary personnel. Any assistant, hygienist, or dental laboratory technician who assists a dentist in practicing dentistry in any capacity other than as an employee or independent contractor, or who directly or indirectly procures a licensed dentist to act as nominal owner, proprietor, or director of a dental office as a guise or subterfuge to enable such assistant, hygienist or dental laboratory technician to engage directly or indirectly in the practice of dentistry defined by chapter 153 of the Code, or who renders dental service directly or indirectly on or for members of the public other than as an employee or independent contractor for an employing dentist shall be deemed to be practicing dentistry without a license.

CHAPTER 5

SUSPENSION OR REVOCATION OF
LICENSES OF DENTISTS AND
DENTAL HYGIENISTS

5.1(153) General grounds. In general terms, suspension or revocation of licenses under these rules shall be on those grounds specified in sections 153.32 and 153.34 of the Code.

5.2(153) Dishonorable or unprofessional conduct in the practice of dentistry or dental hygiene, defined. "For being guilty of dishonorable or unprofessional conduct in the practice of dentistry or dental hygiene" as used in section 153.34(13) of the Code shall include:

5.2(1) The indiscriminate or promiscuous prescribing or dispensing of any drug which,

under the circumstances, has no therapeutic value.

5.2(2) The practice of dentistry or dental hygiene while in a state of advanced physical or mental disability which renders the licensee incapable of performing professional services or impairs functions of judgment necessary to his practice.

5.2(3) The failure to maintain adequate safety and sanitary conditions for a dental office.

5.2(4) The act of a dentist in:

a. Splitting fees, accepting rebates, or commissions, except as authorized by the provisions of this rule, rule 1.4 or chapter 153 of the Code, from any source associated with the service rendered to a patient; provided, however, that the sharing of income in a dental partnership or association shall not be construed as splitting fees nor shall compensating dental auxiliaries on the basis of a percentage of the fee received for the over-all service be deemed accepting a commission.

b. Making suggestive, lewd, lascivious or improper advances to a patient.

c. Engaging in personal conduct which brings discredit to the profession of dentistry and which results in the imposition of a sentence of incarceration in any penal institution, whether or not such sentence is suspended.

d. Employing, assisting, or enabling in any manner an unlicensed person to practice dentistry. The phrase "for conducting the practice of dentistry so as to permit directly or indirectly an unlicensed person to perform work which under this chapter can legally be done only by persons licensed to practice dentistry or dental hygiene in this state" as found in section 153.34(5) of the Code, shall include the practice by a licensed dentist in the same premises occupied by a dental laboratory or technician or the maintenance of a professional association with a dental laboratory or technician if such dental laboratory or technician advertises, solicits, represents, holds itself or himself out in any manner to the general public that it or he will sell, supply, furnish, construct, repair or alter prosthetic dentures, bridges, orthodontic or other appliances or devices to be used as substitutes for, or as a part of natural teeth or associated structures or for correction of malocclusions or deformities, or who in any way violates the provisions of section 153.34 of the Code.

"In the same premises" as used hereinabove shall mean identical public facilities used in common, such as office door, reception room, receptionist, files, telephone, telephone number, address, post-office box, etc.

"The maintenance of a professional association" as used hereinabove shall mean any continuing arrangement of any kind or nature under which the licensed dentist delegates to or permits the assumption by the dental laboratory or dental laboratory technician of any service constituting the practice of dentistry as defined in chapter 153 of the Code.

5.2(5) Practice of dentistry under any name except the licensee's own proper name, such as the use of the words, "clinic", "institute", or any other title that may suggest a public or semipublic activity, or teaching institution, or that could be interpreted to imply superiority over other dental practitioners, shall constitute the unlawful practice of dentistry under the name of an association or trade name, as those terms are used in section 153.34(14) of the Code, and shall be grounds for discipline under section 153.34 of the Code.

5.3(153) Exterior signs limited. The use of signs on the outside of a building wherein a dentist or several dentists conduct their practices which attract the attention of members of the public who are not otherwise seeking to locate a dentist who practices at that location and the use of devices and signs which are intended to, or result in, public attention to the practitioners in that building constitutes unlawful advertising. Any medium employed by a dentist to identify the site of his practice which, apart from the information it contains, constitutes a physical object with attention-getting properties or characteristics, whether by reason of size, shape, color, illumination, pictorial representation, or animation, constitutes unlawful advertising under section 153.19 and section 153.32(1), (2) of the Code.

5.4(153) Hygienist's wrongful solicitation of patients. The board shall revoke or suspend the license of any dental hygienist who is found guilty of using or attempting to use in any manner whatsoever any patient recall list, records, reprints or copies of same, or information gathered therefrom of the names of patients whom he might have served in the office of a prior employer, unless such names appear upon the bona fide recall list of his present employer and were caused to so appear through the legitimate practice of dentistry as provided for in chapter 153 of the Code. The board shall also suspend or revoke the license of any licensed dentist who is found guilty of aiding or abetting or encouraging a dental hygienist employed by him to make any use of a recall list to solicit patronage from patients formerly served in the office of any dentist formerly employing such hygienist. No order of suspension or revocation provided in this rule shall be made or entered except after hearing by the board as provided in chapter 153 of the Code and such order shall be subject to judicial review as provided by law.

CHAPTER 6 PROCEDURAL RULES

6.1(153) Definitions. For the purpose of the rules in this chapter the following definitions shall apply:

6.1(1) "Board" means the Iowa state board of dentistry, or not less than three members thereof, authorized by law to adjudicate contested cases.

6.1(2) "Contested case" means any adversary proceeding before the board the purpose of which is to determine the legal right of any licensee under chapter 153 of the Code, to have his license renewed, or to determine the question of the suspension or revocation thereof in accordance with the terms of chapter 153.

6.1(3) "Respondent" means any person against whom an accusation, charge or order to show cause has been filed as provided for in chapter 153 of the Code or any person whose legal right provided for in chapter 153 shall be determined or affected.

6.2(153) Order to show cause, revocation, suspension. A hearing to determine whether a license should be renewed or revoked or suspended as provided for in chapter 153 of the Code shall only be initiated after causing an investigation of the accusation or charges giving rise thereto to be made and a citation to issue under the seal of the board, signed by the secretary or chairman, requiring the licensee to personally appear at a time and place certain and show cause, if any he has, why his license should be renewed; or to personally appear and answer to or defend against any accusation or charge provided in chapter 153 of the Code as a ground for the suspension or revocation of his license. The citation shall consist of a written statement of charges or accusations setting forth in ordinary and concise language the acts of omission or commission with which the respondent is charged and shall be sufficiently detailed to enable the respondent to answer or defend against. Said citation shall specify the statutes or rules which the respondent is alleged to have violated.

6.3(153) Service of citation or order to show cause. Upon the issuance thereof the citation or the order to show cause, as the case may be, and a copy of all charges or accusations filed against the licensee or other accompanying information relating to the order to show cause, shall be served upon the respondent as provided for in chapter 153 of the Code. If the respondent is a resident of the state of Iowa and can be personally found therein for the purpose of making service, such personal service of the citation may be made upon the respondent in the same manner as provided by law for the service of an original notice in a civil action, and proof thereof made by the return of service executed by such person authorized by law in such cases. But if the respondent is neither a resident of the state of Iowa nor personally present therein so that personal service of the citation can be made upon him within said state, then the citation and copies of the accusation or charges against the respondent shall be served upon respondent by certified mail, addressed to his last known post-office address as shown by the records of the board.

6.4(153) Time and place of hearing. The hearing on the order to show cause for the renewal of the license, or on the question of

suspension or revocation thereof, shall be fixed by the board for a time and place certain, which hearing shall be held not earlier than twenty days following the service of the order to show cause or the citation upon the respondent. For the purpose of this rule, and if certified mail is used for making service, service upon the respondent shall be deemed to have been made when a sealed envelope, addressed to the last known address of the respondent as shown by the records of the board, and having good and sufficient postage affixed thereto, and containing the order to show cause or the citation referred to hereinabove, is deposited in the United States mail in any city or town within the state of Iowa.

6.5(153) Right of personal appearance. The order to show cause or the citation, as the case may be, shall notify the respondent that he may be physically present at such hearing and may be represented by counsel thereat, and that he may present any relevant evidence pertaining to the propriety of renewing his license, or pertaining to the question of the suspension or revocation of his license or the last renewal thereof, and that he will be given a full opportunity to be heard and to present all evidence or witnesses in his behalf and to cross-examine all witnesses testifying against him.

6.6(153) Depositions for use as evidence in the hearing. On request of the respondent, or upon notice from the board to the respondent, the board may permit the testimony of any material witness, residing within or without the state, to be taken for use as evidence in the hearing, by deposition in the same manner prescribed by law for evidentiary depositions in civil actions. Such request or notice shall specify the nature of the proceeding then pending; the name and address of the witness whose testimony is desired; a showing of the materiality of the testimony of such witness and that such witness will be unable to be personally present at such hearing. Whereupon, and upon being satisfied from the showing so made, the board shall forward a request to such witness to appear and testify by deposition before an officer authorized to administer oaths named in the request at a time and place specified therein.

6.7(153) Conduct of the hearing. All hearings conducted by the board under chapter 153 of the Code, in which the rights of any licensee are to be determined shall be governed by the following procedure:

6.7(1) Every hearing in a contested case shall be presided over by the chairman of the board, or in his absence by the vice-chairman. Not less than three members of the board shall be necessary to constitute a quorum for the purpose of conducting such hearing.

6.7(2) The attorney for the board shall advise the member or members of the board concerning the conduct of the hearing and rulings on the admission or exclusion of evidence and other matters of law.

6.7(3) Any member of the board shall voluntarily disqualify himself and withdraw from any case to which he cannot accord a fair and impartial hearing or consideration. Any party may request the disqualification of any board member by filing an affidavit, prior to the taking of evidence at a hearing, stating with particularity the grounds upon which it claimed that a fair and impartial hearing cannot be accorded. The issue shall be determined by the other members of the board. No board member shall withdraw voluntarily or be subject to disqualification if his disqualification would prevent the exercise of a quorum qualified to act in a particular case.

6.7(4) All proceedings at the hearing shall be reported in writing, and the board shall prepare an official record, which shall include testimony and exhibits in each contested case, but it shall not be necessary to transcribe the record unless it is requested for purposes of rehearing or court review.

6.8(153) Evidence.

6.8(1) All evidence shall be taken only on oath or affirmation.

6.8(2) Each party shall have the right to call and examine witnesses; to introduce exhibits; to cross-examine opposing witnesses on any matter relevant to the issues even though that matter was not covered in direct examination; to impeach any witness regardless of which party first called him to testify; and to rebut the evidence against him. If respondent does not testify in his own behalf, he may be called and examined as if under cross-examination.

6.8(3) The board may admit and give probative effect to relevant evidence which possesses probative value and shall not be bound by the technical rules relating to the admissibility of evidence; provided, however, that the board shall give effect to the rules of privilege recognized by law. Hearsay evidence may be used for the purpose of supplementing or explaining any direct evidence but shall not be sufficient in itself to support a finding unless it would be admissible over objection in civil actions. All evidence including records and documents (except tax returns and tax reports) in the possession of the board of which it desires to avail itself shall be offered and made a part of the record in the case. Documentary evidence may be received in the form of copies or excerpts, or by incorporation by reference.

6.9(153) Decision in contested case.

6.9(1) No right, license or privilege shall be granted, issued, renewed, revoked, suspended, limited or conditioned except upon the affirmative vote of at least three members of the board.

6.9(2) Whenever, in a contested case, a member of the board who has not participated in the hearing votes in the decision of the case, a final decision, if adverse to the respondent, shall not be made until a proposed decision,

including the statement of reasons therefor, has been served on the respondent and opportunity has been afforded to file exceptions and present argument to all of the members of the board who are to render the final decision.

6.9(3) The respondent shall have the opportunity to present either oral or written argument and to present additional newly discovered evidence after the close of the record but prior to final decision.

6.9(4) Informal disposition of a contested case may be made in the manner prescribed by law.

6.10(153) Form of decision—findings. Every decision and order adverse to a party to the proceeding shall be in writing and shall contain a statement of findings or reasons, a determination of the issues presented, and decision of the board. The findings shall consist of a statement of the conclusions upon each contested issue of fact necessary to the decision. Parties to the proceedings shall be notified of the decision and order in person or by mail. A copy of the decision and order and accompanying statement of reasons together with proof of service shall be delivered or mailed, upon request, to the respondent or to his attorney of record.

6.11(153) Effective date of decision—stay of execution—notice to licensee.

6.11(1) The decision or order of the board shall become effective immediately upon its service on respondent; provided, however, that the board may, in its discretion, stay the enforcement of its decision pending appeal or reconsideration within thirty days after said service.

6.11(2) The board may, upon its own motion or upon petition of respondent, reconsider or grant a rehearing of any decision rendered in a contested case or may condition any such decision upon just and reasonable grounds.

6.11(3) The filing of a petition for review shall not automatically stay the enforcement of the board decision.

**CHAPTER 7
RECIPROCITY**

7.1(153) For dentists. Any dentist who has been lawfully licensed to practice in another state or territory which has and maintains a standard for the practice of dentistry substantially equal to that now maintained in this state, and who has been lawfully and continuously engaged in the practice of dentistry for five or more years immediately before filing his application to practice in this state and who shall deposit with the secretary of the board a duly attested certificate from the examining board or examining authority of the state or territory in which he is licensed or registered, certifying to the fact of his licensing or registration and of his being a person of good moral character and of professional attainments, may,

upon the payment of a fee of fifty dollars be granted a license to practice dentistry in this state. Provided, however, that no license shall be issued to any such applicant, unless the state or territory from which such certificate has been granted to such applicant shall have extended a like privilege to engage in the practice of dentistry within its own borders to dentists heretofore and hereafter licensed by this state, and provided further, that the board shall have power to enter into reciprocal relations with similar departments or boards of other states whose laws are substantially the same as the provisions of chapter 153 of the Code for the purposes of this rule, in computing the five-year period of practice in another state or territory any person who served in any federal service or on the faculty of an accredited dental college may count the time spent by him in such service.

7.1(1) Each applicant shall attach to his application, Board Form No. 21, a certified copy of any and all licenses to practice dentistry he may hold from other states or territories, together with his sworn statement of his previous service in dentistry, detailing places and dates of employment and indicate whether or not he has ever had a license revoked or suspended. If his license has ever been revoked or suspended, then he must furnish a sworn statement detailing the circumstances thereof.

7.1(2) Each applicant must certify to the board that he has sustained no conviction of a felony or indictable misdemeanor and has committed no violation of chapter 153 or any comparable act defining unprofessional conduct or the illegal practice of dentistry in the state or territory from which he comes.

7.1(3) Each applicant may be required to personally appear before the board for interview at the regular examination meeting or such special meeting as may be fixed by the board.

7.1(4) Each applicant for an Iowa license by reciprocity hereunder must establish to the board's satisfaction that he is a member in good standing of any existing national dental association to which he would be eligible for membership.

7.1(5) Each applicant for an Iowa dental license by reciprocity may be required to pass an examination on the provisions of the Iowa dental practice chapter.

7.2(153) For dental hygienists. Any dental hygienist currently licensed to practice in another state or territory which has and maintains a standard for the practice of dental hygiene substantially equal to that now maintained in this state, who shall file with the secretary of the board a duly attested certificate from the examining board or examining authority of such other state or territory in which he is licensed or registered, certifying to the fact of his licensing or registration and of his being a person of good moral character and of professional attainments, may, upon the

payment of a fee of twenty-five dollars, be granted a license to practice dental hygiene in this state.

7.2(1) He shall complete and file with the secretary of the board his application for such license to practice dental hygiene on Board Form No. 23, and he shall in addition attach a certified copy of any and all licenses to practice dental hygiene he may hold from other states or territories and he shall include with his application a sworn statement of his previous dental hygiene practice, detailing places and dates of employment and the names of his employers and indicate whether or not he has ever had a license revoked or suspended. If his license has ever been revoked or suspended, he shall furnish a sworn statement detailing the circumstances thereof.

7.2(2) Each applicant may be required to personally appear before the board for interview at the regular examination meeting or such special meeting as may be fixed by the board.

7.2(3) Each applicant for license as a dental hygienist shall be required to present satisfactory evidence of graduation from a school of dental hygiene approved by the board.

CHAPTER 8 MISCELLANEOUS RULES

8.1(153) Dental residents, internes, and graduate students. All persons granted permission by the Iowa board of dentistry to practice as residents, internes, or graduate students in board approved teaching or educational institutions offering specialty oriented courses shall be required to furnish to the board the following:

8.1(1) A written request from the superintendent, director or head of the institution in which the applicant seeks to enroll.

8.1(2) A written statement of a licensed Iowa dentist who proposes to exercise supervision and direction over said applicant, specifying in general terms the time and manner thereof.

8.1(3) All applicants herein mentioned shall be required to furnish to the board such additional information as the board may deem necessary to enable it to determine the proficiency of such applicant.

8.1(4) If said licensee leaves the service of such institution during the tenure of said residency, internship or graduate study, the authority granted by the board to said licensee shall be automatically canceled.

8.1(5) The applicant for the "Resident Dentist License" shall file his application therefor with the secretary of the board on Board Form No. 30, together with the fee of ten dollars, whereupon the board may issue such license.

8.1(6) Such licensee shall be subject to all provisions of chapter 153 of the Code and rules of the board and any violation thereof, or the failure of the licensee to perform and progress satisfactorily or receive effective supervision as determined by the board, shall be grounds for the revocation of such license after such notice and hearing as the board may prescribe.

8.2(153) Dental college faculty permits. The board may issue to such members of the faculty of the dental college eligible for licensure but not yet licensed and registered to practice dentistry or dental hygiene in this state a permit entitling the holder thereof to perform all clinical operations which a person licensed to practice dentistry or dental hygiene in this state may lawfully perform, but only within the facilities of the dental college and as an adjunct of his teaching functions therein. Such permit shall expire on the first day of July next following the date

of issuance, and may be extended at the sole discretion of the board for not more than one additional year. A fee of ten dollars shall be paid by the applicant to the board on the issuance of such permit. The dean of the dental college shall certify to the board those bona fide members of the college's faculty who are not licensed and registered to practice dentistry or dental hygiene in Iowa, and shall promptly notify the board of any change in personnel on the faculty. Any faculty member so certified shall, prior to commencing his duties in the dental college, make written application to the board for such permit. Such a permit shall be valid only as long as the holder thereof remains a member of the faculty of the dental college, and shall subject the holder to all provisions of chapter 153 of the Code regulating the practice of dentistry and dental hygiene in this state.

[Filed October 23, 1968]

EMPLOYMENT SAFETY COMMISSION

INDUSTRIAL DIVISION

TITLE I

CHAPTER 1

FLOOR AND WALL OPENINGS, RAILINGS AND TOE BOARDS

1.1(88A)T.I Scope. These rules apply to all places where there is a hazard of person or persons, material or materials falling through floor or wall openings and from stairways and runways. They apply to temporary or emergency conditions as well as permanent conditions. They do not apply to construction work to which the construction safety or safety construction rules are applicable* nor to private residences.

*NOTE: As applied to machinery, cranes, etc., the strict observances of these rules is sometimes impracticable. In such cases, individual rules will not be considered mandatory except when unusual hazard is involved.

Wherever the words "proper administrative authorities" are referred to in these rules, they shall signify the labor commissioner and the Iowa employment safety commission.

1.2(88A)T.I Purpose. The purpose of these rules is to provide safety for life and limb. In cases of practical difficulty or unnecessary hardship, see section 1.13 of the general rules, variations from these rules.

1.3(88A)T.I Definitions.

1.3(1) A "floor opening" is an opening in any floor, platform, pavement, or yard twelve inches or more in its least dimension.

Examples: Stair openings, ladder openings, hatchways, pits, and large manholes through which persons may fall.

Exceptions: Floor openings occupied by elevators, dumbwaiters, conveyers, machinery, or containers are excluded from the scope of this rule. For these, separate safety rules are applicable.

1.3(2) A "floor hole" is an opening in any floor, platform, pavement, or yard less than

twelve inches but more than one inch in its least dimension.

Examples: Belt holes, pipe openings, and slot openings through which materials but not persons may fall.

1.3(3) A "wall opening" is an opening in any wall or partition having both height of at least thirty inches and width of at least eighteen inches.

Examples: Yardarm doorways and chute openings through which persons may fall.

1.3(4) A "wall hole" is an opening in any wall or partition having height of less than thirty inches but more than one inch and width unrestricted.

Examples: Ventilation holes, drainage scuppers.

1.3(5) A "platform" is a working space for persons, elevated above the surrounding floor or ground having both length of more than five feet and width of more than two feet.

Examples: Balconies, platforms for the operation of machinery and equipment, etc.

1.3(6) A "runway" is a passageway for persons, elevated above the surrounding floor or ground having length of more than five feet but width of not more than two feet.

Examples: Footwalks along shafting, walkways between buildings, etc.

1.3(7) A "standard railing" is a vertical barrier erected along exposed edges of floor openings, wall openings, ramps, platforms, and runways to prevent falls of persons.

NOTE: This rule, because its scope covers only falling persons and falling materials does not cover railings used for guarding machinery or equipment. Guard railings for other hazards are treated in corresponding rules.

1.3(8) A "stair railing" is a vertical barrier erected along exposed sides of stairways to prevent falls of persons.

1.3(9) A "handrail" is a single bar or pipe supported on brackets from a wall or partition to furnish persons with a handhold in case of tripping, as on stairways and ramps.

1.3(10) A "toe board" is a vertical barrier at floor level erected along exposed edges of floor openings, wall openings, platforms, runways, and ramps to prevent the falling of materials, tools or equipment.

1.3(11) Adequate* signifies any construction of railings, covers, or other guards that meets the approval of the proper administrative authority.

*NOTE: The rules permit alternate forms of guarding under certain sections where the use of standard construction is not practicable, but only when it is clearly evident that equivalent protection is thereby secured.

1.4(88A) T.I Standard specifications.

1.4(1) A standard railing shall consist of top rail, intermediate rail, and posts, having a vertical height of approximately forty-two inches from upper surface of top rail to floor, platform, runway, or ramp level. The top rail shall be smooth surfaced throughout the length of the railing. The intermediate rail shall be approximately halfway between the top rail and the floor, platform, runway, or ramp. The ends of the rails shall not overhang the terminal posts except where such overhang does not constitute a projection hazard.

Exception: A minimum vertical height of thirty-six inches from top rail to floor, platform, runway, or ramp level shall suffice for all handrailing installations constructed prior to the adoption of this rule.

1.4(2) A standard stair railing shall be of construction similar to a standard railing but the vertical height shall be not more than thirty-four inches nor less than thirty inches from upper surface of top rail to surface of the tread in line with face of the riser at forward edge of the tread.

Exception: Intermediate rails shall not be required where stairways are twenty-two inches or less in width.

1.4(3) The strength of standard railings and standard stair railings under different types of construction is specified in the following paragraphs. For wood construction, nominal or rough dimensions are given, national lumber dressed sizes are acceptable as conforming with the corresponding rough dimensions required, but no rough dry sizes shall be less than will admit dressing to at least minimum dressed sizes. All stock shall be sound, well manufactured, with defects and blemishes limited to pitch pockets, slight wane, pinworm holes, seasoning checks, and sound tight knots, not exceeding in diameter one-third the width of the piece. For metal construction, dimensions are given as used in the trade; all stock shall be free from flaws, cracks, or burrs.

a. For wood railings, the posts shall be of at least 2-inch by 4-inch stock spaced not to

exceed eight feet; the top rails shall be of at least 2-inch by 4-inch stock or of two right angle pieces of at least 1-inch by 4-inch stock and the intermediate rails shall be of at least 2-inch by 2-inch stock or of at least 1-inch by 4-inch stock.

b. For pipe railings, the posts and top rails shall be metal pipe of at least 1½ inches inside diameter and the intermediate rails shall be metal pipe of at least 1 inch inside diameter. The spacing of posts shall not exceed eight feet.

c. For structural metal railings, the posts and top rails shall be angle iron of at least 1½ inches by 1½ inches by ⅜-inch or other metal shapes of equivalent bending strength; and the intermediate rails shall be angle iron of at least 1½ inches by 1½ inches by ⅜-inch or other metal shapes of equivalent bending strength. The spacing of posts shall not exceed eight feet.

d. The anchoring of posts and framing of members for railings of all types shall be of such construction that the completed structure shall be capable of withstanding a load of at least 200 pounds applied in any direction at any point of the top rail.

NOTE: It is recognized that the minimum value for railing strength here specified is inadequate for safety under operating conditions where railings are liable to receive heavy stresses from crowds, trucking, handling materials, etc. For such conditions, additional strength should be provided by use of heavier stock, closer spacing of posts, bracing, or otherwise.

e. Other types, sizes, and arrangements of railing construction are acceptable whenever they meet the following conditions:

(1) A smooth-surfaced top rail at a height above floor, platform, runway, or ramp level approximately forty-two inches, or above surface of the tread in line with the face of the riser of not more than thirty-four inches nor less than thirty inches.

Exception: A minimum vertical height of thirty-six inches from top rail to floor, platform, runway, or ramp level shall suffice for all handrailing installations constructed prior to the adoption of this rule.

(2) A strength to withstand at least the standard requirement of 200 pounds top rail pressure.

(3) Protection between top rail and floor, platform, runway, ramp, or stair treads, equivalent to at least that afforded by a standard intermediate rail.

(4) Elimination of overhang of rail ends unless such overhang does not constitute a hazard.

Examples: Baluster railings, scroll-work railings, paneled railings.

1.4(4) A standard toe board shall be approximately three inches in vertical height from its top edge to the level of the floor, platform, runway, or ramp. It shall be securely fastened in place and with not more than ¼-inch clearance above floor level. It may be

made of any substantial material either solid or with openings not over one inch in length.

NOTE: It is recognized that the minimum height of toe board here specified is inadequate for safety where materials are piled. For such conditions, higher toe boards, paneling from floor to intermediate rail, or paneling from floor to top rail shall be provided when necessary for safety in the opinion of the proper administrative authority.

On elevated runways such as those connecting upper floors of detached buildings, and which are not roofed or covered, a removable section of toe board may be used to facilitate the removal of snow. It is suggested that a ½-inch opening be provided between the top surface of the runway and the bottom of the toe board. Such runways should preferably be covered and enclosed.

1.4(5) A handrail shall consist of a lengthwise member mounted directly on a wall or partition by means of brackets attached to the lower side of the handrail where possible so as to offer no obstruction to a smooth surface along the top and both sides of the handrail. The handrail shall be of rounded or other section that will furnish an adequate handhold for anyone grasping it to avoid falling. The ends of the handrail should be turned into the supporting wall or otherwise arranged so as not to constitute a projection hazard.

The height of handrails shall be not more than thirty-four inches nor less than thirty inches from the upper surface of the handrail to surface of the tread in line with the face of the riser or to the surface of the ramp.

The length of handrail brackets shall be such as will give a clearance between handrails and wall or any projection thereon of at least 1½ inches. The spacing of brackets shall not exceed eight feet.

NOTE: Certain state regulations and the building exits code or rules base the permissible occupancy on the net width of exit stairways measured from rail to rail. It is desirable, therefore, to keep the total overhang of handrails at the minimum consistent with their function of supplying handholds for persons using stairs or ramps. The total projection into the width of stairway should not exceed 3¼ inches.

The mounting and handrails shall be such that the completed structure is capable of withstanding a load of at least 200 pounds applied in any direction at any point of the top rail.

1.4(6) Standard floor opening covers and their supports are those designed to take a live load at least as great as that for which the adjacent floor is designed.

Exception: Trench or conduit covers and their supports, when located in plant roadways, shall be designed to carry a truck rear axle load of at least 20,000 pounds.

Exception: Manhole covers and their supports, when located in plant roadways, shall comply with local standard highway requirements if any; otherwise, they shall be designed to carry a truck rear axle load of at least 20,000 pounds.

The construction of floor opening covers may be of any materials that meet the specifications on strength. They shall be of solid construction except where there is no exposure to falling materials, grill or slatted covers with openings not over one inch in width may be used. The tops of covers should be of nonslip surfaces and shall set flush with the adjacent floor level, except that covers projecting not more than one inch above the floor level may be used providing all edges are chamfered to an angle with the horizontal of not over

thirty degrees. All hinges, handles, bolts, or other parts shall set flush with the floor or cover surface.

1.4(7) Wall opening barriers (rails, rollers, picket fences, and half doors) shall be of such construction and mounting that, when in place at the openings, the barrier is capable of withstanding a load of at least 200 pounds applied in any direction (except vertically upward) at any point on the top rail or corresponding member.

1.4(8) Wall opening grab handles shall be not less than twelve inches in length and shall be so mounted as to give 1½ inches clearance from the side framing of the wall opening. The size, material, and anchoring of the grab handle shall be such that the completed structure is capable of withstanding a load of at least 200 pounds applied in any direction at any point of the handle.

1.4(9) Wall opening screens shall be of such construction and mounting that they are capable of withstanding a load of at least one hundred pounds applied horizontally at any point on the near side of the screen. They may be of solid construction, of grill work with openings not more than eight inches long, or of slat work with openings not more than four inches wide with length unrestricted.

1.5(88A)T.I Guarding of floor openings and floor holes.

NOTE: Standards of size, strength, and construction for the guards specified in this section are given in 1.4(88A)T.I of this rule.

Floor openings occupied by elevators, dumbwaiters, conveyers, machinery, vats, or other containers are not considered in this section. For their guarding, reference should be made to the appropriate safety rule.

1.5(1) Every stairway floor opening shall be guarded by a railing of standard strength, standard anchorage, and of any type of construction specified in 1.4(88A)T.I, but the vertical height shall be not more than forty-two inches nor less than thirty-six inches from upper surface of top rail to floor level. The railing shall be provided on all exposed sides (except at entrance to stairway). Standard toe boards shall be provided also, except in stair towers.

Exception: For infrequently used stairways where traffic across the opening prevents the use of permanent railings (as when located in aisle spaces, etc.) the guard shall consist of a hinged floor opening cover of standard strength and construction and adequate removable railings on all exposed sides (except at entrance to stairway). The removable railings should preferably be hinged or otherwise mounted so as to come into use automatically with the opening of the cover.

Exception: This does not preclude equal protection to a greater height.

1.5(2) Every ladderway floor opening shall be guarded by a standard railing with standard toe board on all exposed sides (except at entrance to opening), with the passage through the railing either provided with a

swinging gate or so offset that a person cannot walk directly into the opening.

1.5(3) Every hatchway and chute floor opening shall be guarded by either:

a. Hinged floor-opening cover of standard strength and construction equipped with railings of adequate strength permanently attached thereto so as to leave only one exposed side. When the opening is not in use, the cover shall be closed or the exposed side shall be guarded at both top and intermediate positions by adequate removable rails, ropes, or chains; or

b. An adequate removable railing with toe board on not more than two sides of the opening and standard permanent railings with toe boards on all other exposed sides. The removable railings shall be kept in place when the opening is not in use and should preferably be hinged or otherwise mounted so as to be conveniently replaceable.

Exception: Where operating conditions necessitate the feeding of materials into any hatchway or chute opening from all sides, the standard guarding requirements may be waived if bars, chains, or other adequate protection is provided to prevent a person from falling through the opening.

1.5(4) Every pit and trap-door floor opening, infrequently used, shall be guarded by a floor opening cover of standard strength and construction which should be hinged in place. While the cover is not in place, pit and trap openings shall be constantly attended by someone or shall be protected on all exposed sides by adequate removable railings that need not be of standard construction.

NOTE: This section is applicable only to floor openings used so infrequently that the hazard is slight in the opinion of the proper administrative authority. Wherever there is periodic or frequent use, the opening shall be guarded as specified in 1.5(3).

1.5(5) Every manhole floor opening shall be guarded by a manhole cover of sufficient strength to adequately carry any load to which the area will be subjected. While the cover is not in place, manhole openings shall be constantly attended by someone or shall be adequately protected by a portable enclosing railing that need not be of standard height and strength.

1.5(6) Every temporary floor opening caused by minor building alterations, yard excavations, etc., shall have adequate guards provided but these need not be of standard construction.

NOTE: Where, in the opinion of the proper administrative authority, there is any considerable exposure to this class of hazard, the requirements of the construction safety rule shall be followed.

1.5(7) Every floor hole into which persons can accidentally walk shall be guarded by either:

a. A standard railing with standard toe board on all exposed sides; or

b. A floor opening cover of standard strength and construction that should be hinged in place. While the cover is not in place, floor holes shall be constantly attended

by someone or shall be protected by a portable enclosing railing that need not be of standard construction.

1.5(8) Any floor hole into which persons cannot accidentally walk (on account of fixed machinery, equipment, walls or other projections) shall be considered adequately guarded. However, when any floor hole might be so located where there is exposure below to falling materials, it must be guarded by means such as:

a. A cover that leaves no openings more than one inch wide. The cover shall be securely held in place but need not be of standard strength and may project above the floor surface; or

b. A standard toe board on all exposed sides of the opening.

1.6(88A) T.I Guarding of wall openings and holes.

NOTE: Standards of size, strength, and construction for the guards specified in this section are given in 1.4(88A) T.I of this rule.

The guard shall be so constructed as to permit emergency entrance in case of fire.

1.6(1) Every yardarm doorway, from which there is a drop of more than four feet, shall be guarded by either:

a. A fixed or rolling barrier rail of standard strength and mounting, extending across the whole opening at a height above the floor level not less than two feet and not more than four feet. The opening should have a sill or threshold that projects above the floor level at least one inch. All handling of materials through the opening shall be done without removal of the barrier; or

b. A grab handle on each side frame of the opening with its center approximately four feet above floor level and of standard strength and mounting or a substantial (2" x 6" or greater) removable door opening barrier at standard height. The opening should have a sill or threshold that projects above the floor level at least one inch; or

c. An extension platform on to which materials can be hoisted squarely for handling. The platform and its supports shall have adequate strength for the loads to be handled and shall have side rails, side chains, or equivalent guards for persons working on the platform.

1.6(2) Every doorway without yardarm or other hoisting equipment from which there is a drop of more than four feet shall be guarded by a rail, roller, picket fence, half door, or equivalent barrier. The guard may be removable but should preferably be hinged or otherwise mounted so as to be conveniently replaceable. Where there is exposure below to falling materials, a removable toe board or equivalent shall also be provided. When the opening is not in use for handling materials, the guard shall be kept in position regardless of a door on the opening.

1.6(3) Every chute wall opening from which there is a drop of more than four feet shall be guarded by one or more of the barriers

specified in 1.6(1) and 1.6(2), as required by the conditions.

1.6(4) Every temporary wall opening, caused by minor building alterations, etc., shall have adequate guards but these need not be of standard construction.

NOTE: Where, in the opinion of the proper administrative authority, there is any considerable exposure to this class of hazard, the requirements of the construction safety rules shall be followed.

1.6(5) Every wall hole shall be guarded if its lower edge is either: (a) On the near side, three inches or less above floor level, or (b) on the far side, five feet or more above ground (or floor) level. The guard shall be either a standard toe board across the bottom of the hole, or an enclosing screen of either solid construction or of grill or slat work with openings not over one inch in width.

NOTE: While the "near" side of a wall hole is usually inside the building, occasionally for basement wall holes, etc., it is necessary to consider the hole from outside the building to determine the requirements for guarding.

Exception: The exemption from guarding may be extended to wall holes in other positions when the falling materials hazard is negligible in the opinion of the proper administrative authority.

Exception: 1.6(5) is based only on the hazard of materials moving along floor level. Wall holes above floor level shall also be adequately guarded where, in the opinion of the proper administrative authority, it is rendered necessary by the piling of materials near the holes or by the projection of materials from machinery, etc. (The latter hazard, however, should preferably be guarded at the source of projection and standards for such guarding will sometimes be found in the safety rule that deals with the type of machinery in question.)

Guarding may be waived where, in the opinion of the proper administrative authority, the hazard is adequately guarded by fixed equipment or fixed window sash.

1.7(88A)T.I Guarding of open-sided floors, platforms and runways.

NOTE: Standards of size, strength, and construction for the guards specified in this section are given in 1.4(88A)T.I of this rule.

1.7(1) Every open-sided floor and platform shall be guarded by a standard railing [or the equivalent as specified in 1.4(3)] on all open sides five feet or more above the adjacent floor (platform) or ground level, except where there is entrance to a ramp, stairway, or fixed ladder. The railing shall be provided with a toe board wherever, beneath the open sides: (a) Persons can pass, (b) there is moving machinery, or (c) there is equipment with which falling materials could create a hazard.

Exception: The intermediate railing and the toe board may be omitted where materials have to be regularly passed over the edge of the floor (platform) as in lumber storage.

Exception: The entire railing and toe board may be omitted from particular sections of open-sided floors and platforms where, in the opinion of the proper administrative authority, special or regular operating conditions make a railing wholly impracticable.

1.7(2) Every runway shall be guarded by a standard railing [or the equivalent as specified in 1.4(3)] on all open sides five feet or more above floor or ground level. Wherever tools, machine parts or materials are likely to be used on the runway, a toe board shall also be provided on each exposed side.

Exception: Runways, used exclusively for special purposes (such as oiling, shafting, or filling tank cars), may have the railing on one side omitted where operating conditions necessitate such omission, providing the falling hazard is minimized by using a width of runway not less than eighteen inches.

NOTE: Where persons entering upon runways become thereby exposed to machinery, electrical equipment, or other danger not a falling hazard, additional guarding than is here specified may be required to maintain safety. For such guarding, reference should be made to the appropriate safety rules.

1.8(88A)T.I Stairway railing and guards.

NOTE: Detailed specifications for strength and construction of stairways and for width of exit stairs are not within the scope of this rule. Reference therefore should be made to the building exits code or rules.

Standards of size, strength, and construction for the stair railings and handrailings specified in this section are given in 1.4(88A)T.I of these rules.

1.8(1) Every flight of stairs having four or more risers shall be equipped with standard stair railings or standard handrails as specified below, the width of the stair to be measured clear of all obstructions except handrails:

a. On stairways of width less than forty-four inches and having both sides enclosed, at least one handrail that should preferably be on the right side descending.

b. On stairways of width less than forty-four inches and having one side open, at least one stair railing that shall be on the open side.

NOTE: Stairways of width less than forty-four inches are intended to be used for a single file of persons only.

c. On stairways of width less than forty-four inches and having both sides open, one stair railing on each side.

Exception: Intermediate rails shall not be required where stairways are twenty-two inches or less in width.

d. On stairways of width forty-four inches or more but less than eighty-eight inches, one handrail on each enclosed side and one stair railing on each open side.

e. On stairways eighty-eight inches or more in width, one handrail on each enclosed side, one stair railing on each open side and one intermediate handrail located approximately midway of the width.

This rule is intended to implement chapter 88A of the Code.

[Filed July 13, 1966]

TITLE I
CHAPTER 2

Reserved for future use

TITLE I
CHAPTER 3
VENTILATION CONTROL OF
GRINDING, POLISHING AND
BUFFING OF FERROUS AND
NONFERROUS METALS

3.1(88A)T.I Scope.

3.1(1) These rules shall apply where grinding, polishing, buffing, scratch brushing, abrasive cut-off wheels, grinding or polishing straps or belts are used and the dust, dirt, fumes and gases generated thereby constitute a hazard to the health of the employees engaged in such operation. These rules apply to the grinding, polishing and buffing of ferrous and nonferrous metals only.

3.2(88A)T.I Definitions.

3.2(1) "*Abrasive cutting-off wheels*" shall mean organic-bonded wheels, the thickness of which is not more than 1/48 of their diameter for those up to, and including, twenty inches in diameter, and not more than 1/60 of their diameter for those larger than twenty inches in diameter, used for a multitude of operations variously known as cutting, cutting-off, grooving, slotting, coping and jointing, and the like. The wheels may be "solid" consisting of organic-bonded abrasive material throughout, "steel centered" consisting of a steel disc with a rim of organic-bonded material molded around the periphery, or of the "inserted-tooth" type consisting of a steel disc with organic-bonded abrasive teeth or inserts mechanically secured around the periphery.

3.2(2) "*Belts*" shall mean all power-driven, flexible, coated bands used for grinding, polishing, or buffing purposes.

3.2(3) "*Branch pipe*" shall mean the part of an exhaust system piping that is connected directly to the hood or enclosure.

3.2(4) "*Cradle*" shall mean a movable fixture, upon which the part to be ground or polished is placed.

3.2(5) "*Disc wheels*" shall mean all power-driven rotatable discs faced with abrasive materials, artificial or natural, and used for grinding or polishing on the side of the assembled disc.

3.2(6) "*Entry loss*" is the loss in static pressure caused by air flowing into a duct or hood. It is usually expressed in inches of water gauge.

3.2(7) "*Exhaust system*" shall mean a system consisting of branch pipes connected to hoods or enclosures, one or more header pipes, an exhaust fan, means for separating solid contaminants from the air flowing in the system, and a discharge stack to outdoors, provided however, that where an exhaust system washes, scrubs or filters the exhausted air

of dusts, vapors, gases or fumes such air may be discharged indoors provided it does not constitute a health hazard to the employees.

3.2(8) "*Grinding wheels*" shall mean all power-driven rotatable grinding or abrasive wheels, except disc wheels as defined in this standard, consisting of abrasive particles held together by artificial or natural bonds and used for peripheral grinding.

3.2(9) "*Header pipe*" or "*main pipe*" shall mean a pipe into which one or more branch pipes enter and which connects such branch pipes to the remainder of the exhaust system.

3.2(10) "*Hoods*" and "*enclosures*" shall mean the partial or complete enclosure around the wheel or disc through which air enters an exhaust system during operation.

3.2(11) "*Horizontal double-spindle disc grinder*" shall mean a grinding machine carrying two power-driven, rotatable, coaxial, horizontal spindles upon the inside ends of which are mounted abrasive disc wheels used for grinding two surfaces simultaneously.

3.2(12) "*Horizontal single-spindle disc grinder*" shall mean a grinding machine carrying an abrasive disc wheel upon one or both ends of a power-driven, rotatable single horizontal spindle.

3.2(13) "*Polishing and buffing wheels*" shall mean all power-driven rotatable wheels composed all or in part of textile fabrics, wood, felt, leather, paper, and may be coated with abrasives on the periphery of the wheel for purposes of polishing, buffing, and light grinding.

3.2(14) "*Portable grinder*" shall mean any power-driven rotatable grinding, polishing, or buffing wheel mounted in such manner that it may be manually manipulated.

3.2(15) "*Scratch brush wheels*" shall mean all power-driven rotatable wheels made from wire or bristles, and used for scratch cleaning and brushing purposes.

3.2(16) "*Swing frame grinder*" shall mean any power-driven rotatable grinding, polishing, or buffing wheel mounted in such a manner that the wheel with its supporting framework can be manipulated over stationary objects.

3.2(17) "*Velocity pressure*" or "*VP*" shall mean the kinetic pressure in the direction of flow necessary to cause a fluid at rest to flow at a given velocity. It is usually expressed in inches of water gauge.

3.2(18) "*Vertical spindle disc grinder*" shall mean a grinding machine having a vertical, rotatable power-driven spindle carrying a horizontal abrasive disc wheel.

3.3(88A)T.I Application.

3.3(1) Every establishment performing dry grinding, dry polishing, or buffing that constitutes a health hazard shall provide suitable hoods or enclosures that are connected

to exhaust systems, except as provided in 3.4(88A)T.I.

Exceptions: Such exhaust systems shall be operated continuously whenever such operations are carried on, and be capable of preventing contaminants from entering the breathing zone.

3.3(2) Where under unusual circumstances recognized control measures cannot be applied, personal protective equipment shall be used. Where respiratory protection devices are used, they shall comply with the Iowa employment safety commission rules, General Division, Title IV, Chapter 4, "Head, Eye and Respiratory Protection".

3.4(88A)T.I Exceptions.

3.4(1) Equipment, operations, and processes shall be exempt from the provisions of this rule when the concentration of any contaminant generated by the grinding, polishing, or buffing of metals or other materials does not exceed the current threshold limit values as published by the Iowa employment safety commission rules, General Division, Title IV, Chapter 2, "Threshold Limit Values".

3.5(88A)T.I Hood and branch pipe requirements.

3.5(1) *Hoods* connected to exhaust systems shall be so designed, located, and placed that the dust or dirt particles shall fall or be projected into the hoods in the direction of the air flow. No wheels, discs, straps, or belts shall be operated in such manner and in such direction as to cause the dust and dirt particles to be thrown into the operator's breathing zone.

3.5(2) *Grinding wheels* on floor stands, pedestals, benches, and special-purpose grinding machines and abrasive cutting-off wheels shall have not less than the minimum exhaust volumes shown in Table 1 with a recommended minimum duct velocity of 4,500 feet per minute in the branch and 3,500 feet per minute in the main pipe. If the best practical hood is a poor enclosure (more than twenty-five percent of the wheel exposed), the exhaust volume shall be increased by fifty percent. The entry losses for all hoods except the vertical-spindle disc grinder hood, shall equal 0.65 velocity pressure for a straight takeoff and 0.15 velocity pressure for a tapered takeoff.

Table 1
Grinding and Abrasive Cutting-Off Wheels

Wheel Diameter Inches	Wheel Width Inches	Minimum Exhaust Volume (ft ³ /min)
To 9	1½	220
Over 9 to 16	2	390
Over 16 to 19	3	500
Over 19 to 24	4	610
Over 24 to 30	5	880
Over 30 to 36	6	1,200

For any wheel wider than wheel diameters shown in Table 1, increase the exhaust volume

by the ratio of the new width to the width shown.

Example:

$$\text{If wheel width} = 4\frac{1}{2} \text{ inches,}$$

$$\text{then } \frac{4.5 \times 610}{4} = 686 \text{ (rounded to 690)}$$

3.5(3) *Buffing and polishing wheels.* Scratch-brush wheels and all buffing and polishing wheels mounted on floor stands, pedestals, benches or special-purpose machines shall have not less than the minimum exhaust volume shown in Table 2.

Table 2

<i>Buffing and Polishing Wheels</i>			
Wheel Diameter Inches	Wheel Width Inches	Minimum Exhaust Volume (ft ³ /min)	
To 9	2	300	
Over 9 to 16	3	500	
Over 16 to 19	4	610	
Over 19 to 24	5	740	
Over 24 to 30	6	1,040	
Over 30 to 36	6	1,200	

3.5(4) *Grinding wheels or discs for horizontal single-spindle disc grinders* shall be hooded to collect the dust or dirt generated by the grinding operation and the hoods shall be connected to branch pipes having exhaust volumes as shown in Table 3.

Table 3

<i>Horizontal Single-Spindle Disc Grinder</i>	
Disc Diameter Inches	Exhaust Volume (ft ³ /min)
Up to 12	220
Over 12 to 19	390
Over 19 to 30	610
Over 30 to 36	880

3.5(5) *Grinding wheels or discs for horizontal double-spindle disc grinders* shall have a hood enclosing the grinding chamber and the hood shall be connected to one or more branch pipes having exhaust volumes as shown in Table 4.

Table 4

<i>Horizontal Double-Spindle Disc Grinder</i>	
Disc Diameter Inches	Exhaust Volume (ft ³ /min)
Up to 19	610
Over 19 to 25	880
Over 25 to 30	1,200
Over 30 to 53	1,770
Over 53 to 72	6,280

3.5(6) *Grinding wheels or discs for vertical single-spindle disc grinders* shall be encircled with hoods to remove the dust generated in the operation. The hoods shall be connected to one or more branch pipes having exhaust volumes as shown in Table 5.

Table 5

<i>Vertical Spindle Disc Grinder</i>			
Disc Diameter Inches	½ or More of Disc Covered	Disc Not	Disc Not
		*No. Exhaust (ft ³ /min)	*No. Exhaust (ft ³ /min)
Up to 20	1	500	2 780

Over 20 to 30	2	780	2	1,480
Over 30 to 53	2	1,770	4	3,530
Over 53 to 72	2	3,140	5	6,010

*Number of exhaust outlets around periphery of hood, or equal distribution provided by other means.

3.5(7) *Grinding and polishing belts* shall be provided with hoods to remove dust and dirt generated in the operations and the hoods shall be connected to branch pipes having exhaust volumes as shown in Table 6.

Table 6

Grinding and Polishing Belts

Belt Width Inches	Exhaust Volume (ft ³ /min)
Up to 3	220
Over 3 to 5	300
Over 5 to 7	390
Over 7 to 9	500
Over 9 to 11	610
Over 11 to 13	740

3.5(8) *Cradles and swing-frame grinders.* Where cradles are used for handling the parts to be ground, polished, or buffed, requiring large partial enclosures to house the complete operation, a minimum average air velocity of 150 feet per minute shall be maintained over the entire opening of the enclosure. Swing-frame grinders shall also be exhausted in the same manner as provided for cradles.

3.6(88A)T.I *Design of exhaust.* Exhaust systems for grinding, polishing, and buffing operations shall be designed to effectively remove such dust, vapors, gases and fumes and such exhaust systems shall be operated continuously during any such operation and shall be provided with dust arresters, collectors or precipitators to collect the dust before the air or gases are discharged therefrom.

3.7(88A)T.I *Testing of exhaust systems.* Exhaust systems for grinding, polishing, and buffing operations shall be tested regularly to ascertain their effective removal of contaminants.

3.8(88A)T.I *Collection of dust and dirt.* All exhaust systems shall be provided with suitable dust collectors.

3.9(88A)T.I *Hood and enclosure design.*

3.9(1) *Grinding, polishing, buffing and abrasive cutting-off wheel hoods.* It is the function of these hoods to protect the operator from the hazards of bursting wheels as well as to provide a means for the removal of dust and dirt generated.

Due to the variety of work and types of grinding machines employed, it is necessary to develop hoods adaptable to the particular machine in question, and such hoods shall be located as close as possible to the operation. Hoods on horizontal grinders using inorganic-bonded abrasive wheels (excluding centerless grinders) shall cover at least seventy-five percent of the grinding wheel unless approval is granted by the labor commissioner after it has been proven to him that it is impossible to op-

erate the grinding wheel efficiently with a seventy-five percent coverage of such wheel subject to further review by the employment safety commission.

The adjustable tongue where applicable shall be kept in working order and shall be adjusted within ¼ inch of the wheel periphery at all times.

3.9(2) In all cases recognized engineering principles shall be applied in the design and construction of hoods and exhaust systems so they effectively remove the dust, dirt, fumes and gases from grinding, polishing, buffing, scratch buffing, abrasive cut-off, grinding or polishing strap that would constitute a health hazard to employees engaged in such operations.

This rule is intended to implement chapter 88A of the Code.

[Filed June 12, 1969]

CONSTRUCTION DIVISION

TITLE II

CHAPTER 1

DEMOLITION

1.1(88A)T.II General.

1.1(1) This part on "Demolition" is intended to be complete in itself, but any device or equipment such as scaffolds, ladders, derricks, hoists, etc., used in connection with the demolition work shall be constructed, installed, inspected, maintained, and operated in accordance with the regulations governing the construction, installation, inspection, maintenance, and operation of such device or equipment as specified in other parts of these rules.

1.1(2) Where applicable, federal, state, and local codes, rules, regulations, and ordinances governing demolition work shall be observed.

1.1(3) No structure, or part of a structure, or any floor or temporary support or scaffold, sidewalk shed, or bridge, or any device or equipment shall be loaded in excess of the safe carrying capacity which shall never be considered more than 1/3 of its ultimate structural strength.

1.1(4) Walkways and passageways shall be provided for the use of the workmen, who shall be instructed to use them, and all such walkways and passageways shall be kept adequately lighted and free from debris and other materials.

1.1(5) Protruding nails in any kind of lumber shall be withdrawn, hammered in, or bent over as soon as such lumber is removed from the structure being demolished, or all nail-bearing lumber shall be placed in piles for future cleaning or burning.

1.1(6) *Warning signs and lights.*

a. On every demolition job, danger signs shall be conspicuously posted around the property, and all doorways or thoroughfares giving access to the property shall be kept barricaded except during the actual passage of men or equipment.

b. During the hours of darkness, red lights, warning lights or flares shall be placed on or about all barricades.

1.1(7) Workers using powered tools shall be furnished with safety goggles having strength-tested lenses and conforming to the requirements for Group A Goggles as given in American Standard Safety Code for the Protection of Heads, Eyes, and Respiratory Organs of Industrial Workers (ASA A2-1938), National Bureau of Standards Handbook H24, and, when the operations are dusty, with respirators approved by the U. S. Bureau of Mines for type A dust; and the workers shall be required to wear such protective devices.

1.2(88A)T.II Preparatory.

1.2(1) If a structure to be demolished has been partially wrecked by fire, flood, explosion, or other causes, the walls shall be shored or braced in accordance with the requirements of the authorities having jurisdiction, or in the absence of such requirements, in accordance with accepted engineering practice, before any demolition work is started.

1.2(2) Disconnecting utility service.

a. The power on all electric service lines shall be shut off and all such lines cut or disconnected at or outside the demolition area before demolition work is started.* Prior to the cutting of such lines, the contractor or property owner shall notify the electric service company and, when required, obtain the approval or co-operation of the electric service company.

b. All gas, water, steam, and other service lines shall be shut off and capped or otherwise controlled at or outside the demolition area or curb before demolition work is started.* In each case, the service company involved shall be notified in advance and, when required, its approval or co-operation obtained by the contractor or property owner.

**Exception:* If it is necessary to maintain any power, water, or other lines during demolition, such lines shall be temporarily relocated or protected with substantial covering to the satisfaction of the utility company and in accordance with applicable codes and legal requirements.

1.2(3) All exterior wall openings which extend down to floor level shall be barricaded to a height not less than three feet above floor level. This provision shall not apply to a story after structural demolition of that story has been started, nor to the ground level floor.

1.2(4) All floor openings and shafts not used for material chutes shall be floored over or enclosed with guardrails and toe boards.

1.2(5) Except for the cutting of holes in floors for chutes, and holes through which to drop materials, preparation of storage space, and other necessary preparatory work, demolition of exterior walls and floor construction shall begin at the top of the structure and

proceed downward, and each story of exterior wall and floor construction shall be removed and dropped into the storage space before commencing the removal of walls and floors in the story next below. This requirement shall not prohibit the demolition of a structure in sections if positive means are taken to prevent injury to persons or damage to property.

1.3(88A)T.II Public and other ground level protection.

1.3(1) Before any demolition work is commenced, every sidewalk or public thoroughfare adjacent to the work site shall either be closed or protected as specified elsewhere in this section. All such thoroughfares which are open to the public shall be kept clear and unobstructed at all times. (See section on warning signs and lights.)

1.3(2) If the structure to be demolished is more than two stories or twenty-five feet high measured from sidewalk or street level and the horizontal distance from the inside of the sidewalk to the structure is fifteen feet or less, a substantial sidewalk shed shall be constructed over the entire length of the sidewalk adjacent to the structure, of sufficient width to accommodate pedestrian traffic without causing congestion. The sidewalk shed shall be lighted either by natural or artificial means sufficient to ensure safety at all times.

1.3(3) Every sidewalk shed shall be capable of safely sustaining a load of 150 pounds per square foot, and if material is to be stored thereon, it shall be capable of sustaining a load of at least 300 pounds per square foot.

1.3(4) The outside edge and ends of the deck of the shed shall be provided with a substantial enclosure of at least forty-two inches above the deck of the shed. Such enclosures may be vertical or inclined outward at approximately forty-five degrees and shall consist of boards laid close together secured to braced uprights, or toe boards and galvanized wire netting formed of not less than No. 16 U. S. gage wire and 1½-inch mesh.

1.3(5) Sidewalk shed openings for loading purposes shall be kept closed at all times except during actual loading operations.

1.3(6) The roof deck flooring of a sidewalk shed shall consist of planking not less than two inches in thickness (nominal size), closely laid. All members of the shed shall be adequately braced and connected to resist displacement of members or distortion of the framework.

1.3(7) Unless the top deck of the sidewalk shed is built solidly against the face of the structure to be demolished, the vertical face of the shed supports next to the building shall be solidly fenced throughout. This shall not prohibit the construction and use of solid sliding or swinging gates as may be necessary for the prosecution of the work.

1.3(8) When the horizontal distance from the inside of the sidewalk to the structure is more than fifteen feet and less than twenty-

five feet, a sidewalk shed may be constructed over the sidewalk as described above or, in place of such a shed, a substantial fence shall be constructed along the inside edge of the sidewalk or, if permission has been granted to close the sidewalk, along the inside edge of the roadway.

1.3(9) Every fence shall be constructed at least six feet high of wood or other suitable material and shall be built solid for its entire height and length except that openings necessary for the proper prosecution of the work may be provided with solid sliding or swinging gates.

1.3(10) When the horizontal distance from the inside of the sidewalk to the structure is more than twenty-five feet, a shed or fence as described above may be built or, in place of such a shed or fence, a substantial railing shall be constructed on the inside of the sidewalk or roadway along the entire length of the demolition site and provided with movable bars as may be necessary for the proper prosecution of the work.

1.3(11) Where workers' entrances to buildings being demolished are not completely protected by sidewalk sheds, all such entrances shall be protected by canopies extending from the face of the building to a point not less than eight feet from it. In each case such overhead protection shall be at least two feet wider than the building entrance or opening and all canopy roof deck flooring shall be at least as strong as the sidewalk shed specified above.

1.4(88A)T.II Removal of materials.

1.4(1) Through chutes.

a. All material chutes which are at an angle of more than forty-five degrees from the horizontal shall be entirely enclosed on all four sides except for openings at or about floor level for the receiving of materials.

b. Openings as specified in 1.4(1), "*a*" above shall not exceed forty-eight inches in height measured along the wall of the chute, and in all stories below the top floor such openings shall be kept closed when not in use.

c. Chutes at an angle of less than forty-five degrees with the horizontal may be left open on the upper side, provided that at the point where such a chute discharges into a chute steeper than forty-five degrees with the horizontal the top of the steeper chute shall be boarded over to prevent escape of material.

d. A designated employee shall be instructed to prevent any person from standing or passing under the discharge end of the chute.

e. When operations are not in progress, the danger area at the discharge end of each chute shall be completely and adequately guarded or otherwise made inaccessible.

f. Any opening into which workmen dump debris at the top of the chute shall be guarded by a substantial guardrail extending at least thirty-six inches above the level of

the floor or other surface on which men stand to dump material into chutes.

g. A toe board or bumper not less than two inches thick and six inches high (nominal sizes) shall be provided at each chute opening if the material is dumped from wheelbarrows. Any space between the chute and edge of openings in the floors through which it passes shall be solidly planked over.

1.4(2) Through holes in the floor.

a. If debris is dropped through holes in the floor without the use of chutes, the total area of the hole cut in any intermediate floor, one which lies between the floor that is being demolished and the storage floor, shall not exceed twenty-five percent of such floor area.

b. The total area of a floor shall be computed from measurements taken to the inside faces of the exterior walls, and the area of floor openings which existed before the beginning of the demolition of the structure shall not be deducted in computing the total area.

c. If the structure is demolished in sections, the total area of the holes cut in any section of the floor shall not exceed twenty-five percent of such sectional floor area.

d. Openings in all floors below the floor from which walls, partitions, or floor construction is being removed shall be protected by standard railings and toe boards or preferably planked over if the holes are not being used for dumping material.

e. All intermediate floor openings for the passage of material shall be completely enclosed with barricades or substantial guardrails not less than thirty-six inches high and at a distance of not less than six feet from the edge of any opening. No barricade or guardrail shall be removed until the story immediately above has been demolished down to the floor line and all debris cleared from that floor.

f. Any opening in floors into which workmen dump debris shall be guarded by a substantial guardrail extending at least thirty-six inches above the level of the floor or other surface on which men stand to dump material.

g. A toe board or bumper not less than two inches thick and six inches high (nominal sizes) shall be provided at each floor opening if the material is dumped from wheelbarrows.

h. When the cutting of a hole in an intermediate floor between the storage floor and the floor which is being demolished makes the intermediate floor or any portion of it unsafe, then such intermediate floor shall be properly shored.

1.5(88A)T.II Stairs, passageways and ladders.

1.5(1) With the exception of stairways, passageways and ladders for the use of workmen, access to the building being demolished shall be entirely closed off at all times.

1.5(2) All ladders shall meet the material and construction requirements specified in section, "Ladders," of these rules.

1.5(3) All stairs, passageways, and ladders covered in rule above shall be maintained in a safe condition.

1.5(4) Ladders or their side rails shall extend not less than three feet above the floor or platform to which such ladders give access.

1.5(5) All ladders shall be secured against slipping out at the bottom and against movement in any direction at the top.

1.6(88A)T.II Removal of walls.

1.6(1) Masonry walls or other sections of masonry shall not be permitted to fall upon the floors of the building in such masses as to exceed the safe carrying capacity of the floors.

1.6(2) No section of wall whose height is more than twenty-two times its thickness shall be permitted to stand without lateral bracing unless such wall is in good condition and was originally designed to stand to a greater height without such lateral support.

1.6(3) Workmen shall not be permitted to work on top of a wall when weather conditions constitute a hazard.

1.6(4) Structural or load-supporting members on any floor shall not be cut or removed until all stories above that floor have been demolished and removed. This provision shall not prohibit the cutting of floor beams for the purpose of providing chutes, provided the structural strength is retained.

1.6(5) Before demolishing any interior or exterior wall which is within ten feet of any opening in the floor immediately below, such opening shall be substantially planked over unless all workmen are removed from all floors below and access to such floors is positively prevented.

1.6(6) In building of "skeleton" construction, the steel framing may be left in place during the demolition of masonry work. Where this is done, all steel beams, girders, and the like, shall be cleared of all loose material as the masonry work progresses downward.

1.6(7) Walkways shall be provided to enable workmen to reach or leave their work on any scaffold or wall. Such walkways shall be not less than three planks, nor less than thirty inches wide.

1.6(8) At the completion of each day's work, all walls shall be left stable and in no danger of being overturned.

1.6(9) Foundation walls which serve as retaining walls to support earth or adjoining structures shall not be demolished until such adjoining structures have been underpinned or braced, and earth removed or supported by sheet piling or sheathing.

1.6(10) In the demolition of brick and masonry chimneys which cannot safely be toppled or dropped, all materials shall be dropped down on the inside of such chimneys.

1.6(11) The loading point at the discharge end of any chute at or near the bottom of a

chimney shall be completely protected by means of an overhead timber canopy having strength equal to the sidewalk shed specified in sections on sidewalk sheds of these rules.

1.6(12) All men on any demolition job shall be required to wear approved type "hard hats."

1.6(13) Construction sheds and tool boxes shall be so located as to protect workers from danger of falling walls and other falling objects.

1.7(88A)T.II Removal of floors.

1.7(1) In the following rules the term "floor arches" shall apply to the masonry filling between the floor beams and girders irrespective of the type of floor system.

1.7(2) In cutting holes in floor arches which span in one direction between two beams or supports, the section of floor arch to be removed in making such hole may be of any width and shall include the entire span of the floor arch which is between the two beams or supports on which it bears.

1.7(3) When workmen are engaged in removing floors, planks of ample strength (not less than two inches thick by ten inches wide, nominal sizes) shall be provided and used by workmen breaking down floor arches. The planks shall be so placed as to give the workmen firm support should the arch collapse unexpectedly and if it is necessary for a workman to straddle a space between two planks, such space shall not exceed sixteen inches.

1.7(4) Walkways not less than thirty inches wide formed of planks of ample strength (not less than two inches thick by ten inches wide, nominal sizes) shall be provided and used by the workmen when necessary to enable them to reach any work place without walking on exposed beams.

1.7(5) Stringers of ample strength shall be installed to support the planks where necessary and the ends of such stringers shall be supported by floor beams or girders and not by floor arches alone.

1.7(6) When floor arches are being removed, no workmen shall be allowed to work in the area directly underneath and such area shall be barricaded to prevent access to it.

1.7(7) The demolition of floor arches shall not be started until they and the surrounding floor area for a distance of twenty feet have been entirely cleared of debris and other unnecessary material.

1.7(8) Planks used for temporary protection shall be sound and at least two inches thick (nominal size). They shall be laid close together with the ends overlapping at least four inches over solid bearings to prevent tipping under a load.

1.8(88A)T.II Storage space.

1.8(1) The storage of waste material or debris on any floor of the building or structure to be demolished shall not be permitted to such an extent that the original allowable floor load is exceeded.

1.8(2) In buildings having wooden floor construction the flooring boards may be removed from not more than one floor above the grade to provide storage space for debris provided falling material is not permitted to endanger the stability of the structure.

1.8(3) If wood floor beams are required to brace interior walls or free standing exterior walls, such beams shall be left in place until some other approved support can be substituted.

1.8(4) In buildings of fire-resistive construction, floor arches to an elevation of not more than twenty-five feet above the grade may be removed to provide storage for debris provided such removal does not endanger the stability of the structure.

1.8(5) If the floor arches are removed from more than one floor for this purpose, the removal shall start at the highest floor, but not over twenty-five feet above the grade, and shall proceed downward subject to all requirements applying to the removal of floor arches.

1.8(6) As an alternative method, the removal of floor arches from the storage space may start at the lowest floor and proceed upward provided that the removal of any floor arch above the lowest is delayed until the top surface of the debris in the storage space is not more than one story below the floor arch to be removed.

1.8(7) Intermediate steel floor beams which are not required for the stability of the structure may be removed from the storage space.

1.8(8) The dumping of material from upper floors into the storage space shall be entirely discontinued during all periods when men are engaged in removing floor arches, floor beams, or performing any other work in the storage space.

1.8(9) Walls shall not be subjected to lateral pressure from stored material or lateral impact from falling material.

1.8(10) The storage space into which material is dumped shall be blocked off, except for openings necessary for the removal of material and such openings shall be closed at all times when material is not being removed.

1.9(88A)T.II Demolition of steel construction.

1.9(1) When floor arches have been removed, the entire tier of beams on which any derrick is supported shall be completely planked over except for such openings as are required for handling material or equipment.

1.9(2) In the operation of cranes and derricks, a standard signal system shall be used and all men assigned to the operation of such equipment shall be fully instructed on the signals.

1.9(3) A tag line or guide rope shall be used on all hoisted or lowered loads.

1.9(4) The riding of the load or load line in any lifting device shall be strictly prohibited.

1.9(5) Whenever acetylene or oxygen cylinders are transported or lifted by crane or derrick, such cylinders shall be placed in substantial stands or cradles.

1.9(6) No beam shall be cut until precautions have been taken to prevent it from swinging freely and possibly striking any worker or any piece of equipment or any part of the structure being demolished.

This rule is intended to implement chapter 88A of the Code.

[Filed July 13, 1966]

**TITLE II
CHAPTER 2
EXCAVATION WORK**

2.1(88A)T.II Definitions.

2.1(1) Equipment. "Equipment" shall mean ladders, scaffolds, ramps, runways, railings, barricades, sheet piling, bracing, and any such safeguards, protective construction, and devices used in affording protection to the men engaged in excavating work.

2.1(2) Jack. A "jack" shall mean a mechanical or hydraulic device to lift, lower, support, or move a load by man power applied through leverage.

2.1(3) Ramp. A "ramp" shall mean any inclined runway including those constructed entirely of dirt.

2.1(4) Runway. A "runway" shall mean any planked-over walkway or drive constructed and maintained as a passageway for workmen or rolling equipment.

2.1(5) Shaft. A "shaft" shall mean a hole sunk into the ground at an angle of forty-five degrees or less with the vertical.

2.1(6) Trench. A "trench" shall mean a narrow excavation made below the surface of the ground. In general the depth will be greater than one of the horizontal dimensions.

2.1(7) C to c. "C" to "c" shall mean center to center.

2.1(8) Shoring. "Shoring" shall mean the art of supporting with or as if with a prop, a system or group of shores, may include sheet piling or bracing.

2.2(88A)T.II General.

2.2(1) This part on "Excavation Work" provides for the protection of the public, employees and property during all excavation work in connection with building and trench-

ing operations, including related subsurface or below grade-level work such as the underpinning, shoring, and bracing of foundations, retaining walls, and the like, provided, however, that none of the regulations comprising this part shall apply to any of the foregoing operations when such operations do not require personnel to work within the excavation.

2.2(2) Any device or equipment used in connection with excavation work shall be constructed, installed, inspected, maintained, and operated by the owner or operator as specified in applicable parts of these rules.

2.2(3) Trees, boulders, and other surface encumbrances located in the work area shall be removed, secured, or protected so as not to constitute a hazard.

2.2(4) If the stability of adjoining buildings or walls is endangered by excavations, shoring, bracing, or underpinning shall be provided and inspected as necessary to ensure the safety of the workmen.

2.2(5) Excavations shall be inspected after every rainstorm or other hazard-increasing occurrence, and the protection against slides and cave-ins increased if necessary.

2.2(6) If it is necessary to place or operate power shovels, derricks, trucks, material, or other heavy objects on a level above and near an excavation, the side of the excavation shall be shored and braced as necessary to resist the extra pressure due to such superimposed loads.

2.2(7) The sides of every excavation six feet or more in depth shall be supported by substantially braced sheet piling or shoring unless the sides of the excavation are sloped to the angle of repose of the material being excavated or the excavation is in solid rock.

2.2(8) Whenever any part of an excavation is protected by a masonry wall, such wall shall be braced to ensure stability. This shall not include reinforced concrete walls known to be of ample strength.

2.2(9) Temporary shoring which has been installed to permit the construction of a retaining wall shall not be removed until such wall has acquired adequate strength.

2.2(10) Except in hard rock, excavations below the level of the base or footing of any foundation or retaining wall shall not be permitted unless the wall is underpinned and all other precautions taken to ensure the stability of the adjacent walls for the protection of the men.

2.2(11) Undercutting of earth banks shall not be permitted unless they are adequately shored.

2.2(12) Excavated material shall not be placed on the ground surface nearer than eighteen inches from the edge of the excavation.

2.2(13) All fixed-in-place ladders and stairways giving access to levels twenty or more feet apart shall be provided with landing platforms at vertical intervals of twenty feet. Every landing platform shall be equipped with standard railings and toe boards.

2.2(14) Lumber sizes, when used in these rules, refer to nominal sizes.

2.3(88A)T.II Protection to the public.

2.3(1) All public walkways, sidewalks, and thoroughfares immediately bordering on or running through any construction site where there is a hazard shall be provided with substantial guardrails or board fences at each hazard. In addition, temporary footwalks beyond the curb shall be substantially constructed and provided with protection on both sides.

2.3(2) Sidewalks and walkways to be kept open for pedestrian traffic shall be kept clear of excavated material or other obstructions and no sidewalks shall be undermined unless shored to carry a live load of one hundred and twenty-five pounds per square foot.

2.3(3) If planks are used for sidewalks or raised walkway protection, they shall be laid parallel to the length of the walk and fastened together against displacement.

2.3(4) All walkways shall be uniform in thickness and all exposed ends shall be provided with beveled cleats to prevent tripping.

2.3(5) Raised walkways shall be provided with plank steps on strong stringers. Ramps used in lieu of steps shall be provided with cleats or safety footing to ensure safe walking.

2.3(6) During the hours of darkness, all public sidewalks and walkways to be kept open for traffic shall be illuminated, and warning lights or flares shall be placed about the property to ensure safety for pedestrian and vehicular traffic.

2.3(7) The public shall not be required or permitted to travel under loads handled by power shovels, derricks, or hoists, unless ample side barricades and overhead protection are provided.

2.4(88A)T.II Sheet piling, shoring and bracing.

2.4(1) All shoring, bracing or sheet piling shall be consistent with the magnitude of the work and the character of the soil or material in which the excavation is made.

2.4(2) If workmen are engaged near the face of an excavation, where the ground is cracked or of such character that caving is likely to occur, shoring necessary to prevent caving shall be provided.

2.4(3) Wood materials used for shoring shall be sound straight-grained timber equal to long leaf yellow pine, douglas fir, or other timber of equal strength. All timber shall be free from splits, shakes, large or loose knots, and shall be of the required dimensions

throughout. Metal shoring of equal or superior strength may be used in lieu of timber.

2.4(4) Wooden sheet piling shall be not less than two inches in thickness and the thickness shall be increased as may be necessary to adequately support the sides of the excavation.

2.4(5) Where temporary sheet piling is used during the excavation work, the shoring and bracing to be provided shall comply with the following requirements:

a. When shores, stringers, and braces are required, they shall be placed at intervals of not more than eight feet.

b. Shores or braces shall bear at the earth against a footing of sufficient area to keep within the allowable soil pressure, "dead men" being buried when necessary to resist the thrust of the braces.

c. Braces at the wood shoring shall not be cut to a bevel but shall be held by wedges and the wedges shall be nailed.

d. The timber shores or braces shall be designed as columns, the following formula being recommended:

$$P=A(1300-20\frac{L}{D})$$

Where:

P=total permissible load in pounds.

A=cross-sectional area of timber in square inches.

L=unbraced length of timber in inches.

D=least dimension of cross section of timber in inches.

e. The shores or braces shall make an angle not greater than thirty degrees with the horizontal.

2.4(6) For excavations where heavy lateral pressures are encountered, which cannot be adequately braced with normal materials, the use of interlocking steel sheet piling is required. Choice of piling should be made from recognized standard tables. Piling must be driven sufficiently below the bottom of the excavation to resist the overturning moment. Steel or timber bracing can be added where necessary.

2.5(88A)T.II Jacks.

2.5(1) General.

a. The rated capacity of every jack should be legibly marked in a prominent location on the jack by casting or stamping.

b. To prevent loading beyond the rated capacity, the manufacturer should designate in printed matter, or otherwise, the intended supporting point of the load and the maximum permissible length of lever and force applied.

c. If auxiliary load-supporting points are provided, the manufacturer should also designate the rated capacity for these points.

d. The design of all jacks shall incorporate a positive stop to prevent overtravel or an indicator where a positive stop is impracticable.

e. The design shall be such that parts may be replaced without requiring special adjustment of either the replacement part or other parts of the jack.

f. When the object has been lifted to the desired height, blocking or cribbing shall be immediately placed under it.

g. A capable man shall be appointed and held responsible for the inspection of all jacks at regular intervals. The inspection shall be made in accordance with rules governing "Inspection of Jacks", below.

2.5(2) Inspection of jacks.

a. Jacks shall be examined for cracked, distorted, or worn parts and to ensure that they are receiving proper lubrication. Time of examination shall depend upon service conditions as follows:

(1) For constant or intermittent use at one locality, thorough inspection once every week.

(2) For jacks shipped between shop and job, thorough inspection when sent out and when returned.

(3) For jacks upon which abnormal load or shock has occurred, thorough inspection before being reused.

b. Jacks which are found to have cracked, distorted, or badly worn parts shall be tagged "out of order" and not reused until repairs are made.

c. Repair or replacement parts shall be examined for possible defects, and only parts which fit properly shall be used.

d. Before being returned to service, repaired jacks shall be subjected to test and should meet the same requirements as when new.

2.6(88A)T.II Ramps and runways.

2.6(1) Timber ramps or runways used for vehicles eight foot or more in width shall have a width of not less than twelve feet. Timber guards not less than eight inches by eight inches shall be securely fastened on top of the runway along each of the outside edges.

2.6(2) Timber ramps or runways, when used as passageways for workmen, shall be provided with standard railings.

2.6(3) All ramps and runways shall be maintained in a safe and serviceable condition.

2.6(4) Workmen shall be instructed to stay off ramps and runways when trucks are passing over them.

2.6(5) Where the incline of the wood ramp is too steep for safe walking, foot cleats, not more than sixteen inches apart, or other non-slip material, shall be provided to prevent slipping.

2.7(88A)T.II Trenches.

2.7(1) General requirements.

a. In all trench operations where men are at work or where they must pass to and from their work, sufficient light, either natural or artificial, shall be provided at all times.

b. All trenches six feet or more in depth shall at all times be supplied with at least one ladder or ramp for each one hundred feet in length or fraction thereof. The ladder shall extend from the bottom of the trench to at least three feet six inches above the surface of the ground.

c. Red lanterns, torches or flashers shall be placed along the exposed sides of all trenches at night as required for necessary warning to the public.

d. Guardrailings or barricades shall be provided at or near the sides of trenches as necessary to protect the workmen and the public, provided, however, that the guardrailings or barricades do not interfere with the orderly progress of the work.

e. The sides of all trenches which are six feet or more in depth, and where the earth is not sloped to the angle of repose, shall be securely held by shoring. The shoring shall be carried along with the excavation and must in no case be omitted unless the trench is cut in solid rock or hard shale.

f. Where a mechanical digger is used, the shoring shall be placed as close as possible to the lower end of the boom.

g. The shoring shall be held in place by screw or hydraulic jacks that are of sufficient capacity to do the work or by cross braces cleated and wedged in place. Where the width of the trench prevents this, the lower end of the cross brace shall bear against a footing in the earth at the bottom of the trench, provided adequate means are taken to keep it from kicking out.

h. When the sloping of trenches to the angle of repose does not extend to the bottom of the trench, the shoring shall be as required to support the vertical part of the trench. The shoring shall extend not less than twelve inches above the bottom of the slope and, if necessary, toe boards shall be placed behind the shoring to prevent material from sliding into the trench. The surface of the slope shall be cleaned of boulders, stumps, or other hard masses of earth to eliminate the danger of their sliding into the trench.

i. Excavated material and superimposed loads shall not be placed nearer than eighteen inches from the sides of the trench, unless bracing has been installed of sufficient strength to withstand the load.

j. When trenches are undercut, they shall be shored to safely support the overhanging material.

k. If a trench is cut alongside an existing structure and the footings of the structure are nearer to the trench than the plane of repose for the soil, they shall be underpinned or the side wall of the trench rigidly supported.

l. Considering the planks used for sheet piling as beams to support the load imposed by the lateral earth pressure, the maximum allowable distance between the horizontal stringers or wales shall be such as will keep the planks within their safe bending stress.

m. Braces shall be considered as columns or struts and shall be of adequate dimension for stiffness.

n. In hand excavated trenches, cleats shall be spiked or bolted to join the ends of braces to stringers to prevent the braces from being knocked out of place.

o. When the depth of the trench requires two lengths of sheet piling, one above the other the lower length shall be set inside the bottom stringers or wales of the upper length and driven down and braced as the excavation continues.

2.7(2) In trenches of varying widths and depths.

a. In trenches of varying widths and depths the use of the following timbers is required and any deviations therefrom shall be on the side of safety. Where wood stringers are specified adequate, jacks may be substituted.

b. For trenches from six feet to ten feet in depth and not more than forty-two inches in width:

(1) In hard solid soil.

Uprights: 2x6 in. planks spaced approximately 6 ft. apart c to c.

Stringers: None.

Cross Braces: Two 2x6 in. planks for depths less than 7 ft.

Three 2x6 in. planks for depths 7 ft. to 10 ft.

If the nature of the soil or parallel excavations close to trenches necessitate the spacing of uprights closer than six feet, they may be held in place by two by six inch horizontal stringers or wales and cross braces spaced not more than six feet apart c to c.

(2) In soil likely to crack.

Uprights: 2x6 in. planks spaced approximately 3 ft. apart c to c.

Stringers: 2x6 in. planks placed near bottom and top of trench.

Cross Braces: Two 2x6 in. planks for depths less than 7 ft.

Three 2x6 in. planks for depths 7 ft. to 10 ft.

Cross braces spaced horizontally not more than 6 ft. apart c to c.

(3) In soft sandy soil or filled ground.

Uprights: 2x6 in. close sheeting.

Stringers: 4x6 in., two for depths less than 7 ft. three for depths 7 ft. to 10 ft.

Cross braces: 4x6 in., spaced horizontally not more than 6 ft. c to c.

c. For trenches from ten feet to fifteen feet in depth and not more than forty-two inches in width:

(1) In hard solid soil.

Uprights: 2x6 in. planks spaced approximately 4 ft. apart c to c.

Stringers: None.

Cross Braces: Three 2x6 in. planks for depths less than 13 ft.

Four 2x6 in. planks for depths 13 ft. to 15 ft.

In lieu of one cross brace to each upright, and where the nature of the soil or nearby parallel excavations makes the spacing of uprights closer than four feet, they may be held in place by two by six inch stringers or wales, and cross braces spaced not to exceed six feet c to c.

(2) In soil likely to crack.

Uprights: 2x6 in. planks spaced 3 ft. apart c to c.

Stringers: 2x6 in. planks, three in the height of the trench.

Cross Braces: Three 2x6 in., for depths less than 13 feet.

Four 2x6 in. for depths 13 ft. to 15 ft.

Cross braces spaced horizontally not more than 6 ft. apart c to c.

(3) In soft sandy soil or filled ground.

Uprights: 2x6 in. close sheeting.

Stringers: 4x6 in., three for depths less than 13 ft., four for depths 13 ft. to 15 ft.

Cross Braces: 4x6 in., spaced horizontally not more than 6 ft. apart.

d. For trenches more than fifteen feet in depth and not more than forty-two inches in width:

(1) In soil of all kinds.

Uprights: 2x6 in. close sheeting.

Stringers: 4x12 in., spaced vertically not to exceed 4 ft. c to c.

Cross Braces: 4x12 in., spaced horizontally not to exceed 6 ft. c to c.

e. For trenches from six to ten feet in depth and more than forty-two inches in width:

(1) In hard soil.

Uprights: 2x6 in. planks spaced 6 ft. apart c to c.

Stringers: 4x6 in., spaced vertically 4 ft. apart c to c.

Cross Braces: 4x4 in., spaced horizontally 6 ft. apart c to c.

(2) In soil likely to crack.

Uprights: 2x6 in. planks spaced 3 ft. apart c to c.

Stringers: 4x6 in., spaced vertically 4 ft. apart c to c.

Cross Braces: 4x4 in., spaced horizontally 6 ft. apart c to c.

(3) In soft sandy soil or filled ground.

Uprights: 2x6 in. close sheeting.

Stringers: 4x6 in., two for depths less than 7 ft., three for depths 7 ft. to 10 ft.

Cross Braces: 4x4 in., spaced horizontally 6 ft. apart c to c.

f. For trenches from ten to twenty feet in depth, and more than forty-two inches in width:

(1) In soil of all kinds.

Uprights: 2x6 in. close sheeting.

Stringers: 6x6 in., spaced vertically 4 ft. apart c to c.

Cross Braces: 6x8 in., spaced horizontally 6 ft. apart c to c.

g. For trenches more than twenty feet in depth, and more than forty-two inches in width:

(1) In soil of all kinds.

Uprights: 2x6 in. close sheeting.

Stringers: 6x8 in., spaced vertically 4 ft. apart c to c.

Cross Braces: 6x8 in., spaced horizontally 6 ft. apart c to c.

2.7(3) *In trenches with hydrostatic pressure.*

a. For trenches not more than eight feet in depth:

Uprights: 2x6 in. tongued and grooved close sheeting.

Stringers: 6x8 in., spaced vertically 4 ft. apart c to c.

Cross Braces: 6x6 in. or 6x8 in., spaced horizontally 6 ft. apart c to c.

The greater dimension of the stringers shall be placed at right angles to the sheeting.

b. Where desired, steel sheet piling and bracing may be substituted for wood.

c. In lieu of the above-described shoring, a traveling metal cage of strength and protection equal or greater to the wood shoring specified above may be used. No men shall be allowed to work in the excavation except under the protection of this cage.

2.8(88A)T.II Power-driven shovels.

2.8(1) General requirements.

a. The operator of every shovel shall be protected by a cab, screen, or other suitable means in case a cable should break or material fall from a dipper when racked in close to the machine at a high level.

b. No unauthorized person shall be allowed on the operating platform when the shovel is in operation, and the machine operator shall not converse with any unauthorized person while operating the machine.

c. A suitable ladder or steps and hand-holds shall be provided when necessary to afford safe access to the operating platform.

d. All shovels when not in use shall be left with the dipper on the ground.

e. In case of a breakdown, the shovel should, if practicable, be moved well away from the foot of the slope before repairs are made.

f. All persons shall be warned to keep away from the range of the shovel's swing, and to avoid being struck by the cab as it rotates.

g. Workmen shall not be permitted to stand back of the shovel or in line with the swing of the dipper when the shovel is in operation or being moved.

h. The trucks of all power shovels shall be inspected regularly, particular consideration being given to brakes and steering gear. All defects shall be promptly repaired.

i. Shovels shall be inspected for safe operations each morning before starting work.

j. All oiling and greasing of equipment shall be done when the machine is shut down.

k. Operators shall not be permitted to leave the cab while the master clutch is engaged.

l. Whenever it is necessary to move the shovel under electric wires, ample clearance shall be provided, together with such precau-

tions as may be necessary to prevent contact between any part of the shovel and the wires. A most serious hazard in crane or shovel operation is contact with the electrical power lines. A minimum distance of ten feet is required between any part of the crane or shovel and its load and power lines. If possible, all interfering wires should be relocated during construction. It should never be assumed that a power line taken out of service is harmless, as it may be inadvertently switched back into the circuit at any time or may be energized by feedback from the power system. Where crane or shovel must pass under power lines and where the equipment can come within ten feet of said lines, the installation of a safety guard is required. In addition, if a crane boom is operating within fifteen feet of a power line a lookout man should be stationed under the line thirty to forty feet away where he can judge the distance between the boom and its closest point and the line.

m. The wire rope on power-operated shovels shall be regularly inspected and shall be changed when ten percent of the wires in any three-foot length are broken.

2.8(2) Electric shovels.

a. All wiring and electrical apparatus shall be installed, equipped, and maintained according to the rules of the local code governing such equipment.

b. Temporary wiring shall be properly grounded to minimize the danger of shock.

c. In the handling of electrical equipment, experienced electricians and operators shall be employed to do the work.

2.8(3) Steam shovels.

a. Steam boilers shall be installed, equipped, and maintained and tested in accordance with the rules of Iowa Boiler Code.

b. The boiler and all steam pipes shall be insulated or guarded, and all other necessary precautions taken to protect workmen from burns.

c. Before starting, the drip cocks in the pipes leading from the boiler to the engine shall be opened and the cylinders and pipes drained.

d. Drains and blow-offs shall discharge under the shovel or the discharge pipe shall be shielded to protect persons passing or working near the shovel.

2.8(4) Compressed-air and gasoline shovels.

a. The compressor, air receiver, and other parts of the compressed-air equipment shall be installed, equipped, and maintained as prescribed by the local code and regulations governing such equipment.

b. Every compressor shall be provided with approved safety devices, including a safety valve, pressure gauge, and fusible plug.

c. Only a mineral oil having a high flash point shall be used for lubricating air compressors, and the quantity carefully regulated.

d. All automatic controls shall be inspected daily and kept in first-class working condition.

e. Compressors shall always be supplied with a plentiful supply of cooling water kept in continuous free circulation, unless the compressors are air-cooled.

f. When transporting gasoline from the general supply to the equipment in five gallon quantities or less, safety cans of the nonspill type shall be used.

g. If tank truck service is not available, gasoline in quantities in excess of five gallons shall be transported in steel drums or barrels. All bungs shall be tight, and the drum chocked to prevent movement.

h. No open lights shall be used when transporting gasoline. Approved electric flash lamps only shall be used.

i. When gasoline is pumped from drum to storage tank on the equipment, a hose with a metallic nonstatic nozzle shall be used. The pump must be of a type which does not create pressure inside the drum.

j. When gasoline is being pumped into the storage tank, the engine of the shovel shall be shut down.

k. A fire extinguisher of suitable type shall be placed on or convenient to every shovel or other similar piece of operating equipment.

2.9(88A) T.II Trucks.

2.9(1) All employees shall be strictly prohibited from:

a. Riding on trucks unless specifically authorized to do so.

b. Getting on or off moving vehicles.

2.9(2) Truck engines shall never be allowed to run in closed garages or other enclosed places unless properly ventilated.

2.9(3) All parts and accessories of trucks shall be kept in good repair and safe condition. Trucks with broken or cracked parts or defective tires shall be removed from service until the defects have been corrected.

2.9(4) No person shall be permitted to remain on a truck when it is being loaded by a power shovel or to remain within reach of the swing of the dipper unless truck is provided with a steel cab guard.

2.9(5) Loose material shall never be loaded on a truck so as to project horizontally beyond the sides of the body nor so that it can be jarred off due to vibration during transit.

2.9(6) Driverless trucks while being loaded shall be properly blocked where there is a possibility of their moving by gravity, vibration, from blasts, or other causes.

2.9(7) Loads not fully contained within the body of the truck shall be secured by means of chains, cables, ropes, or other effective devices.

2.9(8) Completely deflated tires on trucks shall never be inflated until after the load has been removed by jacking up the truck. Truck drivers and mechanics shall be instructed in this procedure.

2.9(9) Dump bodies of dump trucks shall be blocked or cribbed before inspecting, servicing, or repairing while hoisted.

2.10(88A)T.II Wheelbarrows.

2.10(1) Wheelbarrows with split or cracked handles shall not be used.

2.10(2) Wheels shall be strong, true running, and well secured to the frame.

2.10(3) When wheelbarrows are used in narrow passageways, knuckle guards or gloves shall be provided.

2.10(4) Workmen shall not be permitted to run with empty wheelbarrows with the handles in an upright position.

2.10(5) Wheelbarrows shall never be left in such a position that they can readily tip over or fall.

2.11(88A)T.II Hard hats.

2.11(1) All men on any excavation job shall be required to wear approved type "hard hats."

Note: In instances of future improved technology or methods, which are equally or of greater safety than herein specified, such improved technology or methods may be used upon approval in writing of the Iowa employment safety commission and shall later become an amendment to the rules by appropriate action of the commission.

This rule is intended to implement chapter 88A of the Code.

[Filed July 12, 1967]

TITLE II
CHAPTER 3

CRANES, DERRICKS, AND HOISTS

3.1(88A)T.II Scope.

3.1(1) These rules on "Cranes, Derricks and Hoists" pertain to the temporary use of this equipment on construction work and are for the purpose of providing protection for the public, employees and property. They do not cover installations by a railway, electric or communication utility in the exercise of its function as a utility and located outdoors or in buildings used exclusively for that purpose.

All hoists, cranes or derricks shall be constructed, installed, inspected, maintained, and operated by the owner or user as specified in applicable parts of these rules.

3.1(2) Operators' qualifications and responsibilities.

a. Only duly qualified and authorized persons selected or assigned by the employer or the employer's representative shall operate cranes, derricks or hoists.

b. The operator shall be responsible for those operations under his direct control. Whenever there is any hazard as to safety, the operator shall notify the employer or his representative immediately of such hazard. The employer or his representative shall immediately take corrective action.

3.2(88A)T.II Definitions.

3.2(1) Crane. A machine for raising, shifting and lowering heavy weights commonly by means of a projecting swinging arm.

It may be driven manually or by power and may be fixed or mobile.

3.2(2) Deadman. A buried log (or similar inert mass) serving as an anchor (as for a guy rope).

3.2(3) Derricks.

a. Breast derrick. A derrick without a boom, the mast consisting of two side members spread farther apart at the base than at the top, tied together at top and bottom by rigid members, the top held from tipping by guys, and the load raised and lowered by ropes through a sheave or block secured to the top crosspiece.

b. Gin-pole derrick. A derrick consisting only of a mast, with guys from its top so arranged as to permit leaning the mast in any direction, the load being raised or lowered by ropes leading through sheaves or blocks at the top of the mast.

c. Guy derrick. A fixed derrick consisting of a mast capable of being rotated, supported in a vertical position by three or more guys, and a boom whose bottom end is hinged or pivoted to move in a vertical plane, with lines between the head of the mast and the head of the boom for raising and lowering the boom, and lines from the head of the boom for raising and lowering the load.

d. Stiff-leg derrick. A derrick similar to a guy derrick except that the mast is supported or held in place by two or more stiff members capable of resisting either tensile or compressive forces. Sills are generally provided to connect the lower ends of the two stiff-legs to the foot of the mast.

3.2(4) Dog. A mechanical device for holding, gripping or fastening something.

3.2(5) Gooseneck. (Of a stiff-leg derrick.) An iron hook connecting a spear with a mast.

3.2(6) Ground. A copper or copper alloy rod driven a minimum of eight feet into the earth and electrically connected to the equipment by a copper wire at least No. 2 American Wire Gauge.

3.2(7) Gudgeon pin. A wrist pin, a cross-head pin on which a connecting rod turns.

3.2(8) Guy. A rope, chain, or rod attached to something to brace, steady or guide it.

3.2(9) Hoist. An apparatus for raising or lowering the load by the application of a pulling force, and not including a car or platform running in guides.

3.2(10) Hoist tower. A temporary elevator shaft or scaffolding used to hoist materials.

3.2(11) Material hoist cage. An enclosure used to contain materials being hoisted.

3.2(12) Kinking. Becoming tightly twisted at one or more points.

3.2(13) Moused hook. A hook provided with a safety closing device which must be manually released.

3.2(14) Pawl. A pivoted tongue or sliding bolt on one part of a machine that is adapted to fall into notches on another part (as a ratchet wheel) so as to permit motion in one direction and prevent it in reverse.

3.2(15) Shackle. A "U" shaped metal fitting with a pin through the ends.

3.2(16) Sheaves. Any grooved wheel or pulley.

3.2(17) Sheave pin. Axle for the sheave.

3.2(18) Spider. (Of a guy derrick.) A plate with holes at the head of the mast into which are fastened the guys which support the derrick.

3.3(88A)T.II Material hoists.

3.3(1) No personnel shall be allowed to ride in material hoist cages unless proper safety devices are installed.

3.4(88A)T.II Shaftway construction.

3.4(1) Hoist shaftways shall be constructed of sound material. Towers shall be vertically straight and plumb. The shaftway structure, including foundation footings, shall be built with a factor of safety which will sustain maximum possible loading, including wind loading.

3.4(2) The shaftway tower shall be cross-braced and strutted and firmly anchored. When erected independently of a structure, towers shall be guyed at each corner at least every thirty-two feet in height with a minimum three-eighths-inch diameter wire rope. Anchorage shall be sufficient to develop full strength of the guy. Guy wires shall not be attached to reinforcing steel projecting through the floor in freshly poured concrete or other insecure portions of new work. Commercially built hoists and towers shall be guyed according to manufacturer's recommendations.

3.4(3) When it is necessary to cross public streets, passageways, or working areas with guy wires, adequate clearance for traffic shall be provided and the guy shall be marked with warning or clearance lights. The lower end of the guy shall be protected from damage by moving vehicles where necessary.

3.4(4) Metal scaffolding sections used for material hoist towers shall be carefully erected in accordance with manufacturer's instructions. Substantial foundation footing shall be provided and tower shall be securely anchored to the building or independently guyed as for wood towers.

3.5(88A)T.II Shaftway enclosures.

3.5(1) Shaftways of inside hoists shall be enclosed solidly or with substantial wire mesh of not greater than two-inch openings to a height of at least six feet from each landing, except on sides used for loading and unloading. Where workmen are working near such shaftways, above the six-foot level, a

temporary guard between them and the shaftway shall be erected.

3.5(2) All inside material hoists shall be protected at all floors with sliding gates of sufficient height to prevent anyone from looking over them into the shaft.

3.6(88A)T.II Landing platforms.

3.6(1) Where landing platforms connect the shaftway to the building, such platforms shall be constructed of sound material capable of sustaining maximum possible load. Standard guard rails and toe boards shall be provided.

3.6(2) Where platform entrance to a shaftway is exposed to hazard of falling objects, substantial overhead protection shall be provided.

3.6(3) All landing platforms shall be kept free and clear of building material and debris at all times. All landing platforms shall be adequately lighted.

3.7(88A)T.II Cages.

3.7(1) Material hoist cages shall be substantially constructed with toe boards and heavy screen wire enclosures on unused sides. Enclosure material shall be of sufficient size to prevent the projection of wheelbarrow handles, tools, and other objects over the edge.

3.7(2) Where wood is used for the car floor, it shall be sound and at least one and one-half inches in thickness, securely fastened and braced to the cage frame. If floors are covered with metal, they shall have a nonslip surface.

3.7(3) The cage roof shall be constructed of material strong enough to protect the men loading from falling objects.

3.8(88A)T.II Hoisting ropes and sheaves.

3.8(1) Steel wire hoisting ropes, not less than plow steel grade and equal in flexibility to standard 6 x 19 plow steel wire rope with a factor of safety as follows shall be used as suspension means for all hoists.

a. Material hoists and derricks.
5 to 1

b. Mobile cranes.

(1) For supporting rated loads (including boom suspensions): The strength factor for live or running ropes that wind on drums or pass over sheaves shall be not less than 3.5 to 1. The strength factor for standing or guy ropes shall be not less than 3.0 to 1.

(2) For supporting the boom and the working attachments at recommended travel positions and boom lengths: The strength factor for live or running ropes shall be not less than 3.5 to 1. The strength factor for standing or guy ropes shall be not less than 3.0 to 1.

(3) For supporting the boom under recommended erection conditions: The strength factor for live or running ropes shall be not less than 3.0 to 1. The strength factor for standing or guy ropes shall be not less than 2.5 to 1.

3.8(2) The minimum dimensions for all sheaves used for material hoists shall be as given in the following table:

Rope Diameter	Tread Diameter
5/16	6-1/2
3/8	7-1/2
1/2	10
5/8	12-1/2
3/4	15
7/8	17-1/2
1	20
1-1/8	22-1/2
1-1/4	25

Mobile lifting cranes, follow the table given below.

Ratio of pitch diameter to rope diameter:

Load hoist sheaves on boom	18:1
Load hoist sheaves in lower block	16:1
Load hoist drums	18:1
Boom hoist sheaves	15:1
Boom hoist drums	15:1

3.8(3) Wire ropes shall be inspected by the operator at least once each week when in use and no rope shall be used for the purpose of raising or lowering men [See 3.3(88A) T.II] or materials when more than ten percent of the total wires are broken in any running foot of said rope, or when the wires on the crown of the strands are worn down to less than sixty percent of their original area, or when, by superficial inspection, the rope shows marked signs of corrosion.

3.8(4) Wire ropes shall never be uncoiled like fiber rope. The end of the rope shall be held and the coil rolled on the ground like a hoop.

3.8(5) Wire ropes shall be lubricated regularly to protect them from corrosion and excessive wear. Lubricants shall be free from acid or alkali, and shall be of the proper consistency.

3.8(6) Wire ropes that have been burned shall not be used for load-carrying purposes.

3.8(7) Ropes shall be securely fastened to drums and shaft conveyances by zinc plugs, wedge-socket type connections, or by suitable clamps, and at least two full turns of the rope shall remain on the winding drum at all times. When clamps are used, not less than three clamps shall be used.

3.8(8) Where there is a possibility of material falling on, or striking the wire rope, so as to throw it off the sheaves or drums, they shall be boxed in horizontally, or, if vertical, to a height of twelve feet.

3.8(9) Where fixtures are attached to wire rope by means of wire rope clips, the clips shall be attached with the base of the clip against the live, or long end and the U-bolt bearing against the dead, or short end of the rope.

3.8(10) Replacement ropes on mobile cranes shall be at least the same size and type as originally furnished or recommended by the crane manufacturer.

3.9(88A)T.II Concrete bucket towers.

3.9(1) A concrete bucket tower located inside a structure and which is three feet or less from any scaffold, or the edge of the shaft-way, or floor opening in which it is installed, shall be substantially enclosed on all sides. The enclosure shall extend at least eight feet above such scaffold or floor.

3.9(2) Openings with platforms shall be formed at each floor level, and the runway leading to the tower shall be guarded with railing and toe boards.

3.9(3) When a concrete bucket is discharged into a chute, the chute shall be substantially constructed of wood or metal and extend from the tower to the point where the concrete is to be poured or transferred to vehicles or hoppers. The chute shall be substantially supported and pitched so that the concrete will flow by gravity. The pit shall be drained and shall be deep enough so that any spillage from the bucket will fall below the blocking on which the bucket rests while being filled.

3.9(4) Men shall not work in the pit without first resting the bucket on strong timbers supported on two sides of the tower.

3.9(5) The bucket tower shall be securely guyed at two or more elevations as may be necessary and the sheaves over which the cable passes shall be firmly secured to overhead sheave beams and supporting framework and the sheaves shall be kept well-lubricated.

3.9(6) Every bucket hoist shall be provided with a broken rope type safety device.

3.9(7) A substantial platform provided with railing and toe boards shall be constructed near the top of the tower where the concrete is dumped into the chute, and a strong ladder fastened to one side of the tower to enable a man to reach the platform in safety.

3.9(8) Workmen shall not ride in or on the bucket.

3.10(88A)T.II Hoisting engines. (This rule does not apply to mobile cranes.)

3.10(1) Hoisting engines shall have sufficient capacity to handle the maximum load with reserve power for any emergency.

3.10(2) Hoisting engines shall be enclosed with barricades for the protection of the public.

3.10(3) Engines shall have brakes capable of stopping and holding one and one-half times the rated load and a dog or pawl to be used when a load is held for an extended length of time.

3.10(4) Where electric power is used, the panel boards, motors source of power, brakes, and other devices shall be installed and operated in accordance with the applicable rules of the Iowa employment safety commission in effect on October 8, 1968; local and Iowa state electrical codes.

3.10(5) Where internal combustion engines are used, the engine shall be directly connected to the winding drum or traction sheave with only a transmission or clutch to control power transmission, or both. The engine shall be equipped with an overspeed governor.

3.10(6) Electrically powered hoists, except those with conventional clutches and brakes, shall be equipped with an effective magnetic release brake which will be automatically applied when the controlling mechanism of the machine is in "stop" position. The brake magnet shall be so installed that its action will not be affected by any motor field discharge or by counter-electromotive force, or by any single ground or accidental short circuit.

3.10(7) Mechanical brakes on hoists powered by internal combustion engines shall be installed so as to stop movement of the winding drum or traction sheave. Foot or hand pressure shall be required to apply the brake.

3.11(88A) T.II Signals.

3.11(1) The signal codes to be used [see Appendix Figure One] shall be posted next to the signaling device at each work level and at the operator's location. All wording shall be in large size letters, clearly visible to all concerned.

3.11(2) The hoist rope shall be marked to indicate the position of the hoist at each landing. Marking shall be done with paint and not with rags or other material.

3.12(88A) T.II Cranes.

3.12(1) Inspection and maintenance.

a. General maintenance and inspection shall be performed regularly, and all worn or broken wire rope or worn or broken parts shall be repaired or replaced at once. In addition to this periodic inspection, the operator shall check the safe operating condition of his equipment before commencing work each day. The daily check shall include brakes, controls, wire rope, sheaves, fire-fighting equipment, and clean up of oil, grease, and debris, from walkways and floors. Fire-fighting equipment shall be kept in the cab.

b. Cranes shall never be manually oiled or greased while in motion.

3.12(2) Capacity. No load shall be lifted which exceeds the rated capacity of the crane at the operating boom angle or radius. Attachment to the crane of plates or signs showing manufacturer's safe loads for various radii or boom angles is required.

3.12(3) Operation.

a. Standard operating signals shall be agreed upon and shall be used to direct all operations.

b. Outriggers shall be used when needed with rubber-tired cranes.

c. When cranes are being operated on soft ground, timber mats shall be laid down.

d. Slings shall be adequate for the load being lifted.

e. Tag lines or guide ropes shall be used on loads that are liable to swing or must be guided through a restricted space. The signalman or operator shall determine that the proper sling is being used and that it is correctly applied before the load is lifted.

f. Riding of loads by workmen is prohibited.

g. Loads shall not be swung over the heads of workmen.

h. A shackle or moused hook shall be used with swinging buckets.

i. Approved type hard hats as specified in Iowa employment safety commission rules, general division, Title IV, chapter 4, "Head, Eye and Respiratory Protection" shall be worn at all times by the operator of all cranes, derricks and hoists and by all personnel who are within an area up to fifty feet beyond the radius of the boom and load whenever the crane, derrick or hoist is not secured as provided in 3.12(6).

3.12(4) Moving cranes. Getting on or off a moving crane is prohibited.

3.12(5) Electrical power lines.

a. An operator shall not operate a crane, derrick, or hoist where any part of the equipment or load being moved comes within ten feet of an energized electric power line rated at thirty-five KV or below.

b. If a signalman is present to direct the operator and is in proper position to determine clearances or if an approved type insulating barrier not a part of or an attachment to the crane, derrick or hoist has been erected to prevent physical contact with the lines and if the equipment is properly grounded, the crane, derrick or hoist may be operated to within six feet of such energized power lines.

c. In all instances where the energized power or electrical line rating exceeds thirty-five KV, the clearance between the crane, derrick, hoist or load must be increased by one foot for each additional twenty-five KV or fraction thereof over thirty-five KV.

d. In transit, with no load and boom lowered, the clearance shall be a minimum of four feet.

e. Exception: Where operation closer than the above clearances is required, special safeguards designed by a registered electrical engineer and approved by the labor commissioner may be used, provided, equivalent safety is achieved.

3.12(6) Securing machine.

a. Power shall be cut off and all controls locked before the operator leaves the cab.

b. Booms of mobile cranes shall be lowered to the ground or tied to a support when the machine is left unattended by an operator overnight or for a longer period of time.

c. The operator shall never leave the machine while a load is suspended.

d. Proper cribbing supports must be installed when assembling or disassembling booms.

3.13(88A)T.II Derricks.

3.13(1) *Guy derricks.*

a. Derricks shall rest on a good foundation and be securely braced to prevent slipping. Derricks and foundations shall be inspected frequently.

b. The top of the mast shall be braced by not less than six guy lines as nearly equally spaced as possible.

c. Sufficient horizontal shoring shall be installed against the foot blocks of the derrick to take the pull of the hoisting engine. Foot blocks shall be securely anchored.

d. The gudgeon pin shall be carefully examined by the operator each time the derrick is erected. It shall be cleaned with a safe solvent and a search made for hair cracks. If cracks are discovered, a new pin shall be installed. The gudgeon pin, sheave pin, and foot bearing shall be oiled regularly. When work is stopped for any length of time, the boom shall be lowered to the horizontal position to prevent it swinging in the wind or being tampered with.

e. Double sets of bolts shall always be used to fasten back the legs of a stiff-leg derrick.

f. The gooseneck or spider shall be securely held in place by hold-down guys.

3.13(2) *Breast derricks.*

a. Gears shall be thoroughly protected and provided with a ratchet stop that will safely hold the load.

b. A hole shall be drilled in each of the gear shafts outside the crank handle, and a cotter pin (not a nail or piece of wire) shall be placed in each hole so that the handle cannot work off the shaft.

c. When mechanical brakes are provided, the operator shall be sure that the brake will safely hold the load. Before lowering the load by the brake, cranks shall be removed so that no one can be struck by them.

3.13(3) *Pipe laying derricks.*

a. Top and bottom blocks shall be guarded to prevent workmen's fingers being caught between rope and blocks.

b. Winding drum shall be equipped with a friction brake and a positive pawl.

c. Gear wheels shall be thoroughly guarded, even though the mechanism is hand-driven.

d. All blocks, hooks, slings, brakes, and ropes shall be inspected at the start of each shift by the operator.

e. When derricks are left on the street at night the rope shall be wound up until the blocks meet, drum wheels secured and locked, and warning lights placed if required.

3.14(88A)T.II Gin poles.

3.14(1) Gin poles shall have no less than four guy lines, secured approximately ninety degrees apart.

3.14(2) Anchors shall be at least one-half the distance of the height of the pole from its base, and shall consist of approved deadmen or be attached to a permanent stable object. When guy lines are anchored to deadmen, the anchors shall be located at least one and one-half times the height of the pole from the base.

3.14(3) Gin poles shall be of selected timber sound and free from knots or steel, and shall be securely fastened at the foot to prevent kicking out during operation.

3.15(88A)T.II Slings.

3.15(1) An experienced man shall be placed in charge of all slings on the job and shall be held responsible for their good condition. They shall be frequently inspected. If slings are of wire rope they shall be lubricated at regular intervals.

3.15(2) The eyes of rope slings shall be properly spliced-in and shall have thimbles in them to withstand wear.

3.15(3) Slings shall not be bent around sharp corners of the load.

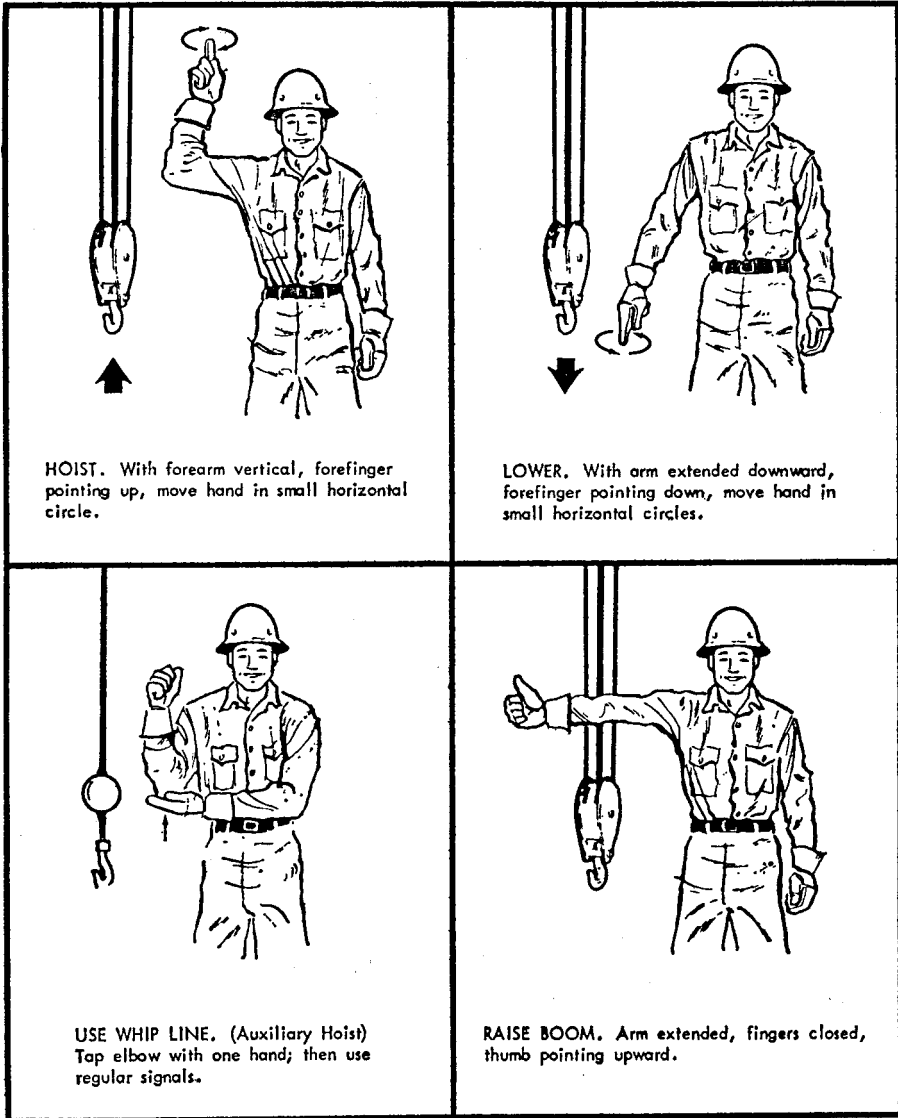
3.15(4) When lifting a load with multiple slings, they shall be arranged so as to equalize the weight of the load as much as possible.

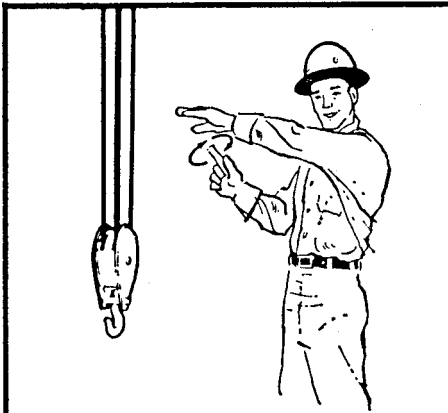
3.15(5) When plates are lifted they shall be held by clamps that hold firmly under the load.

These rules are intended to implement chapter 88A of the Code.

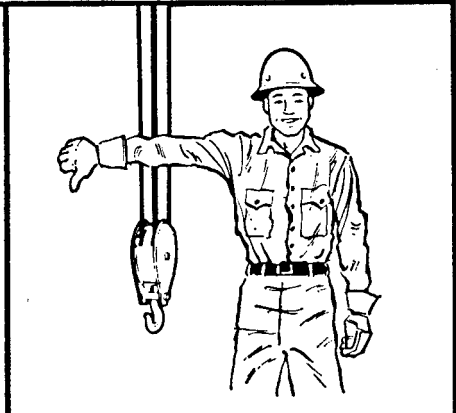
[Filed October 15, 1968]

FIGURE ONE
HAND SIGNALS

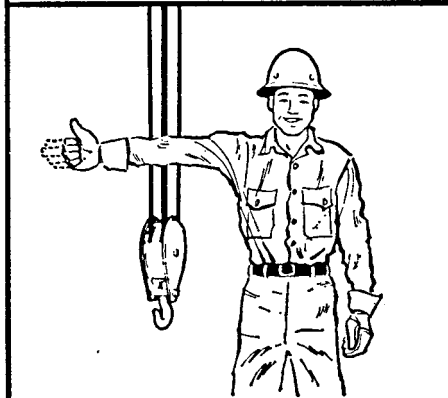




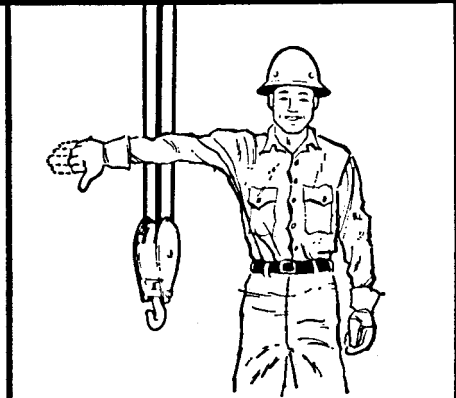
MOVE SLOWLY. Use one hand to give any motion signal and place other hand motionless in front of hand giving the motion signal. (Hoist Slowly shown as example)



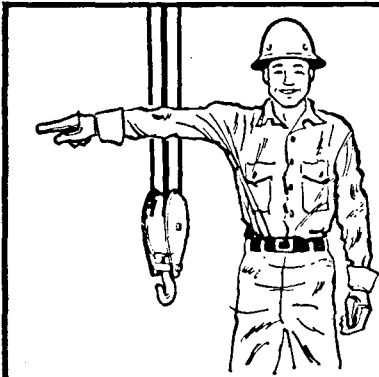
LOWER BOOM. Arm extended fingers closed, thumb pointing downward.



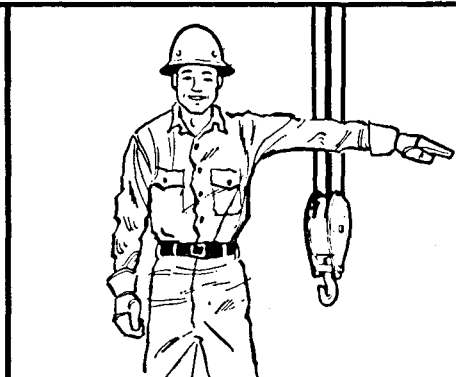
RAISE THE BOOM AND LOWER THE LOAD. With arm extended thumb pointing up, flex fingers in and out as long as load movement is desired.



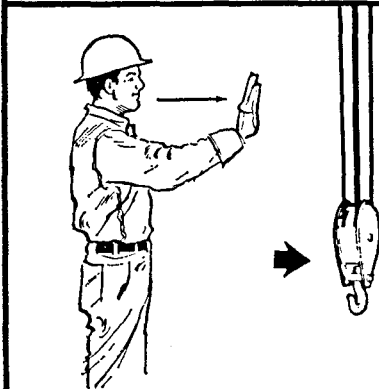
LOWER THE BOOM AND RAISE THE LOAD. With arm extended, thumb pointing down, flex fingers in and out as long as load movement is desired.



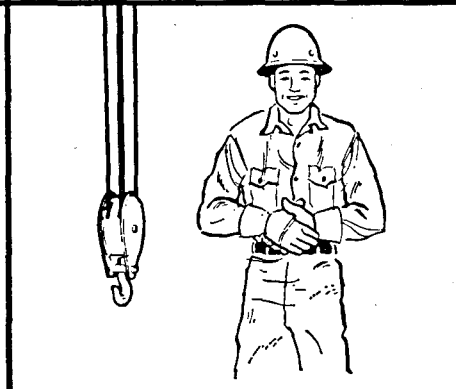
SWING. Arm extended point with finger in direction of swing of boom.



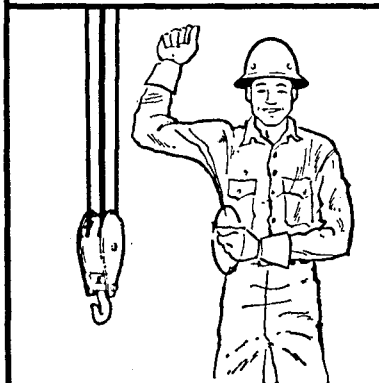
STOP. Arm extended, palm down, hold position rigidly.



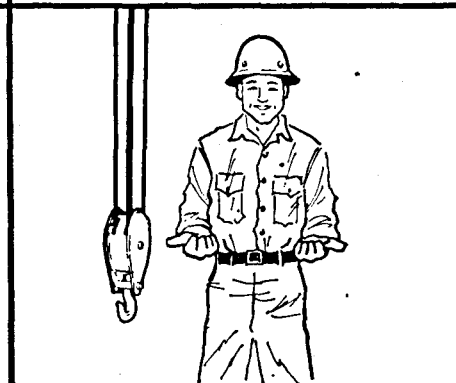
TRAVEL. Arm extended forward, hand open and slightly raised, make pushing motion in direction of travel.



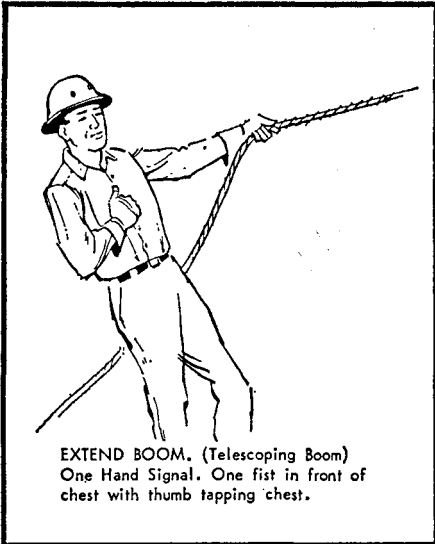
DOG EVERYTHING. Clasp hands in front of body.



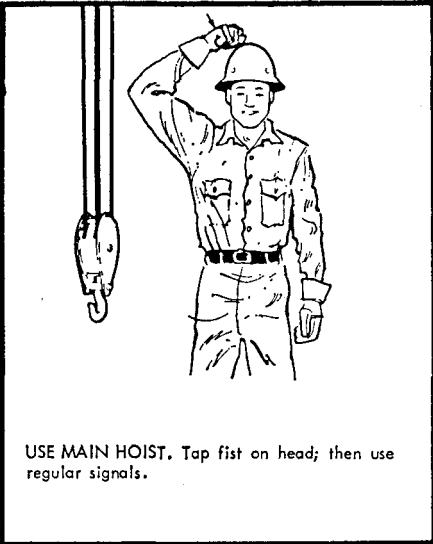
TRAVEL. (One Track) Lock the track on side indicated by raised fist. Travel opposite track in direction indicated by circular motion of other fist, rotated vertically in front of body. (For crawler cranes only)



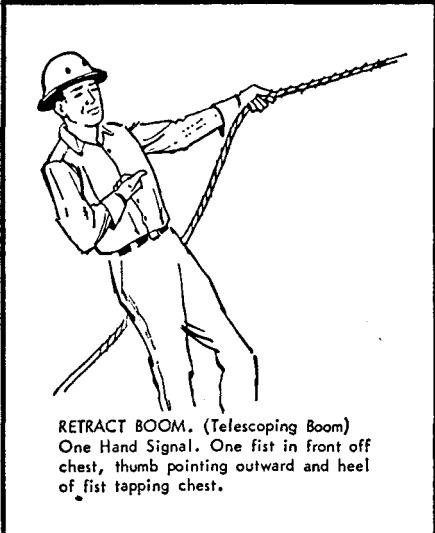
EXTEND BOOM. (Telescoping Booms) Both fists in front of body with thumbs pointing outward.



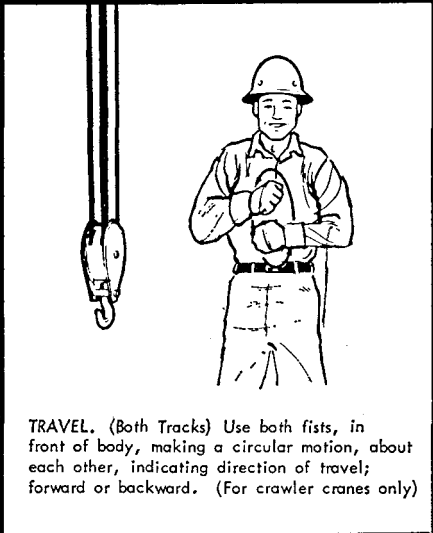
EXTEND BOOM. (Telescoping Boom)
One Hand Signal. One fist in front of chest with thumb tapping chest.



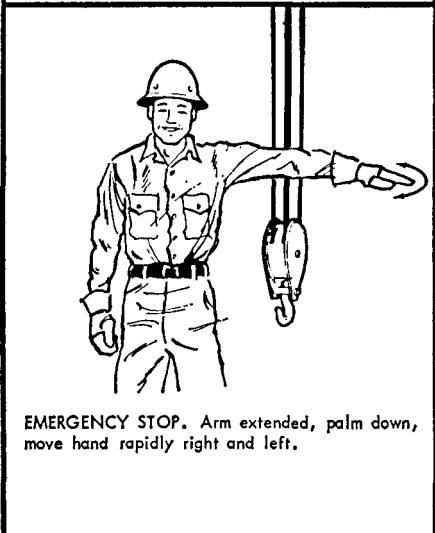
USE MAIN HOIST. Tap fist on head; then use regular signals.



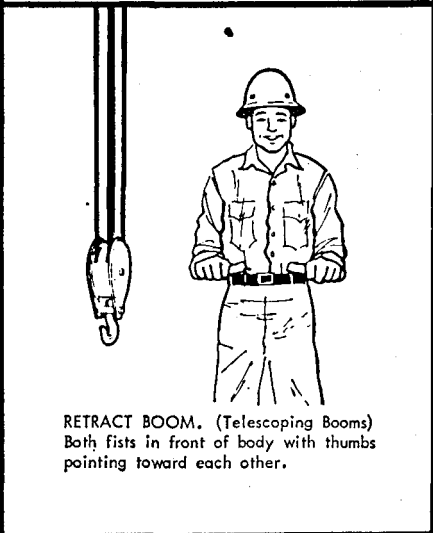
RETRACT BOOM. (Telescoping Boom)
One Hand Signal. One fist in front of chest, thumb pointing outward and heel of fist tapping chest.



TRAVEL. (Both Tracks) Use both fists, in front of body, making a circular motion, about each other, indicating a direction of travel; forward or backward. (For crawler cranes only)



EMERGENCY STOP. Arm extended, palm down, move hand rapidly right and left.



RETRACT BOOM. (Telescoping Booms)
Both fists in front of body with thumbs pointing toward each other.

UTILITIES AND SERVICES DIVISION

TITLE III

CHAPTER 1

ELECTRICAL INSTALLATIONS IN HAZARDOUS LOCATIONS

Introduction

Purpose.

(a) The purpose of these rules is the practical safeguarding of persons and of buildings and their contents from hazards arising from the use of electricity for light, heat, power, radio, signaling and for other purposes.

(b) These rules contain basic minimum provisions considered necessary for safety. Compliance therewith and proper maintenance will result in an installation essentially free from hazard, but not necessarily efficient, convenient, or adequate for good service or future expansion of electrical use.

Hazards often occur because of overloading of wiring systems by methods or usage not in conformity with these rules. This occurs because initial wiring did not provide for increases in use of electricity. For this reason it is recommended that the initial installation be adequate and that reasonable provisions for system changes be made as may be required for future increase in the use of electricity.

(c) These rules are not intended as a design specification nor an instruction manual for untrained persons.

Scope.

(a) *Covered.* It covers the electric conductors and equipment installed within or on public and private buildings and other premises, including yards, carnival and parking lots, and industrial substations; also the conductors that connect the installations to a supply of electricity, and other outside conductors adjacent to the premises.

(b) *Not covered.* It does not cover installations in mines, ships, railway cars, aircraft, automotive equipment, or the installations or equipment employed by a railway, electric or communication utility in the exercise of its function as a utility and located outdoors or in buildings used exclusively for that purpose.

1.1(88A)T.III Definitions.

1.1(1) Accessible.

a. (As applied to wiring methods.) Not permanently closed in by the structure or finish of the building; capable of being removed without disturbing the building structure or finish. (See "Concealed" and "Exposed.")

b. (As applied to equipment.) Admitting close approach because not guarded by locked doors, elevation or other effective means. (See "Readily Accessible.")

1.1(2) *Ampacity.* Current-carrying capacity expressed in amperes.

1.1(3) *Anesthetizing location.* Areas in hospitals, clinics and doctors' offices in which flammable anesthetics are or may be administered to patients. Such locations will include

operating rooms, delivery rooms and anesthesia rooms, and will also include any corridors, utility rooms or other areas which are or may be used for administering flammable anesthetics to patients. Recovery rooms are not classified as anesthetizing locations unless used for administering flammable anesthetics.

1.1(4) *Appliance.* An appliance is utilization equipment, generally other than industrial, normally built in standardized sizes, or types, which is installed or connected as a unit to perform one or more functions such as clothes washing, air conditioning, food mixing, and deep frying.

a. *Fixed:* An appliance which is fastened or otherwise secured at a specific location.

b. *Portable:* An appliance which is actually moved or can easily be moved from one place to another in normal use.

c. *Stationary:* An appliance which is not easily moved from one place to another in normal use.

1.1(5) *Approved.* Acceptable to the authority enforcing these rules.

1.1(6) *Askarel.* A synthetic nonflammable insulating liquid which, when decomposed by the electric arc, evolves only nonflammable gaseous mixtures.

1.1(7) *Attachment plug* (plug cap) (cap). An attachment plug is a device which, by insertion in a receptacle, establishes connection between the conductors of the attached flexible cord and the conductors connected permanently to the receptacle.

1.1(8) *Automatic.* Automatic means self-acting, operating by its own mechanism when actuated by some impersonal influence, as for example, a change in current strength, pressure, temperature, or mechanical configuration.

1.1(9) *Branch circuit.* A branch circuit is that portion of a wiring system extending beyond the final overcurrent device protecting the circuit.

A device not approved for branch circuit protection such as a thermal cutout or motor overload protective device is not considered as the overcurrent device protecting the circuit.

a. *Appliance.* An appliance branch circuit is a circuit supplying energy to one or more outlets to which appliances are to be connected; such circuits to have no permanently connected lighting fixtures not a part of an appliance.

b. *General purpose.* A branch circuit that supplies a number of outlets for lighting and appliances.

c. *Individual.* A branch circuit that supplies only one utilization equipment.

d. *Multiwire.* A multiwire branch circuit is a circuit consisting of two or more ungrounded conductors having a potential difference between them and an identified grounded conductor having equal potential difference between it and each ungrounded conductor of

the circuit and which is connected to the neutral conductor of the system.

1.1(10) Building. A structure which stands alone or which is cut off from adjoining structures by fire walls with all openings therein protected by approved fire doors.

1.1(11) Cabinet. An enclosure designed either for surface or flush mounting, and provided with a frame, mat or trim in which swinging doors are hung.

1.1(12) Cable.

a. MI cable: Mineral-insulated metal-sheathed cable is completely noncombustible and consists of a copper tubing enclosing copper conductors insulated with a compressed magnesium oxide. Special moisture-tight terminal fittings are employed, and the completed system must be tested for insulation resistance. The cable is relatively small but somewhat more expensive than other types of wiring.

b. ALS cable: Aluminum-sheathed cable.
c. MC cable: Metal-clad cable.

1.1(13) Cell (as applied to raceway). A cell shall be defined as a single enclosed tubular space in a cellular metal floor member, or an enclosed tubular space in a floor made of precast cellular concrete slabs, the axis of the cell being parallel to the axis of the floor member.

1.1(14) Circuit breaker. A device designed to open and close a circuit by nonautomatic means and to open the circuit automatically on a predetermined overload of current, without injury to itself when properly applied within its rating.

1.1(15) Communication circuit. Applies to telephone, telegraph (except radio), district messenger, fire and burglar alarms and similar central station systems and to telephone systems not connected to a central station system but using similar type of equipment, methods of installation and maintenance.

1.1(16) Concealed. Rendered inaccessible by the structure or finish of the building. Wires in concealed raceways are considered concealed, even though they may become accessible by withdrawing them.

1.1(17) Conductor.

a. Bare: A bare conductor is one having no covering or insulation whatsoever.

b. Covered: A covered conductor is one having one or more layers of nonconducting materials that are not recognized as insulation under these rules.

1.1(18) Connector, pressure (solderless). A pressure wire conductor is a device which establishes the connection between two or more conductors or between one or more conductors and a terminal by means of mechanical pressure and without the use of solder.

1.1(19) Continuous load. A load where the maximum current is expected to continue for three hours or more.

1.1(20) Control circuit. The circuit which carries the electrical signals directing the performance of the controller but does not carry the main power circuit.

1.1(21) Controller. A device, or group of devices, which serves to govern, in some predetermined manner, the electric power delivered to the apparatus to which it is connected.

1.1(22) Cooking unit, counter-mounted. An assembly of one or more domestic surface heating elements for cooking purposes designed for flush mounting, in or supported by, a counter, and which assembly is complete with inherent or separately mountable controls and internal wiring.

1.1(23) Cord.

a. C—Lamp cord.

b. PD—Twisted portable cord.

c. PO—Parallel cord.

1.1(24) Current limiting overcurrent protective device. Device which when interrupting a specified circuit, will consistently limit the short circuit current in that circuit to a specified magnitude substantially less than obtainable in the same circuit if the device were replaced with a solid conductor having comparable impedance.

1.1(25) Cutout box. An enclosure designed for surface mounting and having swinging doors or covers secured directly to and telescoping with the walls of the box proper.

1.1(26) Demand factor. The demand factor of any system, or part of a system, is the ratio of the maximum demand of the system, or part of a system, to the total connected load of the system, or the part of the system under consideration.

1.1(27) Device. A unit of an electrical system which is intended to carry but not utilize electric energy.

1.1(28) Disconnecting means. A device, or group of devices, or other means whereby the conductors of a circuit can be disconnected from their source of supply.

1.1(29) Dust-ignition-proof. Enclosed in a manner which will exclude ignitable amounts of dust or amounts which might affect performance or rating and which when installation and protection are in conformance with these rules, will not permit arcs, sparks or heat otherwise generated or liberated inside of the enclosure, to cause ignition of exterior accumulations or atmospheric suspensions of a specified dust on or in the vicinity of the enclosure.

1.1(30) Dustproof. So constructed or protected that dust will not interfere with its successful operation.

1.1(31) Dust-tight. So constructed that dust will not enter the enclosing case.

1.1(32) Duty.

a. Continuous: Continuous duty is a requirement of service that demands operation at a substantially constant load for an indefinitely long time.

b. Intermittent: Intermittent duty is a requirement of service that demands operation for alternate intervals of (1) load and no load; or (2) loads and rests; or (3) loads, no load and rest.

c. Periodic: Periodic duty is a type of intermittent duty in which the load conditions are regularly recurrent.

d. Short time: Short-time duty is a requirement of service that demands operation at a substantially constant load for a short and definitely specified time.

e. Varying: Varying duty is a requirement of service that demands operations at loads, and for intervals of time, both of which may be subject to wide variation.

1.1(33) Duty cycle (Welding). The percentage of the time during which the welder is loaded.

1.1(34) Electric sign. A fixed or portable, self-contained electrically illuminated appliance with words or symbols designed to convey information or attract attention.

1.1(35) Enclosed. Surrounded by a case which will prevent a person from accidentally contacting live parts.

1.1(36) Equipment. A general term including material, fittings, devices, appliances, fixtures, apparatus and the like used as part of, or in connection with, an electrical installation.

1.1(37) Explosion-proof apparatus. Apparatus enclosed in a case which is capable of withstanding an explosion of a specified gas or vapor which may occur within it and of preventing the ignition of a specified gas or vapor surrounding the enclosure by sparks, flashes, or explosion of the gas or vapor within, and which operates at such an external temperature that a surrounding flammable atmosphere will not be ignited thereby.

1.1(38) Exposed.

a. (As applied to live parts.) Exposed means that a live part can be inadvertently touched or approached nearer than a safe distance by a person. It is applied to parts not suitably guarded, isolated or insulated.

b. (As applied to wiring method.) Exposed means not concealed.

1.1(39) Externally operable. Externally operable means capable of being operated without exposing the operator to contact with live parts.

This term is applied to equipment, such as a switch, that is enclosed in a case or cabinet.

1.1(40) Feeder. A feeder is the circuit conductors between the service equipment, or the generator switchboard of an isolated

plant, and the branch circuit overcurrent device.

1.1(41) Fitting. An accessory such as a locknut, bushing or other part of a wiring system which is intended primarily to perform a mechanical rather than an electrical function.

1.1(42) Garage. A building or portion of a building in which one or more self-propelled vehicles carrying volatile, flammable liquid for fuel or power are kept for use, sale, storage, rental, repair, exhibition or demonstrating purposes, and all that portion of building which is on or below the floor or floors in which such vehicles are kept and which is not separated therefrom by suitable cutoffs.

1.1(43) Ground. A ground is a conducting connection, whether intentional or accidental, between an electrical circuit or equipment and earth, or to some conducting body which serves in place of the earth.

1.1(44) Grounded. Grounded means connected to earth or to some conducting body which serves in place of the earth.

1.1(45) Grounded. (Effectively grounded communication system.) Effectively grounded means permanently connected to earth through a ground connection of sufficiently low impedance and having sufficient ampacity to prevent the building up of voltages which may result in undue hazard to connected equipment or to persons.

1.1(46) Grounded conductor. A conductor which is intentionally grounded, either solidly or through a current-limiting device.

1.1(47) Grounding conductor. A conductor used to connect an equipment, device, or wiring system with a grounding electrode or electrodes.

1.1(48) Guarded. Covered, shielded, fenced, enclosed, or otherwise protected, by means of suitable covers or casings, barriers, rails or screens, mats or platforms, to remove the liability of dangerous contact or approach by persons or objects to a point of danger.

1.1(49) Hazardous locations. Locations in which flammable gases, vapors or dusts are or may be present in the air in quantities sufficient to produce explosive or ignitable mixtures.

1.1(50) Header ducts. Transverse metal raceways for electrical conductors, furnishing access to predetermined cells of a precast cellular concrete floor, thus providing for the installation of electrical conductors from a distribution center to the floor cells.

1.1(51) Hoistway. Any shaftway, hatchway, wall hole, or other vertical opening or space in which an elevator or dumbwaiter is designed to operate.

1.1(52) Identified. Identified, as used in these rules in reference to a conductor or its

terminal, means that such conductor or terminal is to be recognized as grounded.

1.1(53) Isolated. Isolated means that an object is not readily accessible to persons unless special means for access are used.

1.1(54) Lighting outlet. An outlet intended for the direct connection of a lampholder, a lighting fixture or a pendant cord terminating in a lampholder.

1.1(55) Location.

a. Damp location. A location subject to a moderate degree of moisture, such as some basements, some barns, some cold storage warehouses and some tunnels.

b. Dry location. A location not normally subject to dampness or wetness.

A location classified as dry may be temporarily subject to dampness or wetness, as in the case of a building under construction.

c. Wet location. A location subject to saturation with water or other liquids, such as locations exposed to weather, washrooms in garages, and like locations. Installations underground or in concrete slabs or masonry in direct contact with the earth shall be considered as wet locations.

1.1(56) Low-energy power circuit. A circuit which is not a remote-control or signal circuit but which has the power supply limited in accordance with the requirements of Class II remote-control circuits.

Such circuits include electric door openers and circuits used in the operation of coin-operated phonographs.

1.1(57) Multioutlet assembly. A type of surface or flush raceway designed to hold conductors and attachment plug receptacles, assembled in the field or at the factory.

1.1(58) Nonautomatic. Nonautomatic means that the implied action requires personal intervention for its control.

As applied to an electric controller, nonautomatic control does not necessarily imply a manual controller, but only that personal intervention is necessary.

1.1(59) Outlet. A point on the wiring system at which current is taken to supply utilization equipment.

1.1(60) Outline lighting. An arrangement of incandescent lamps or gaseous tubes to outline and call attention to certain features such as the shape of a building or the decoration of a window.

1.1(61) Oven, wall-mounted. A domestic oven for cooking purposes designed for mounting in or on a wall or other surface.

1.1(62) Panelboard. A single panel or group of panel units designed for assembly in the form of a single panel; including buses, and with or without switches or automatic overcurrent protective devices for the control of light, heat or power circuits of small individual as well as aggregate capacity; designed to be placed in a cabinet or cut-

out box placed in or against a wall or partition and accessible only from the front.

1.1(63) Qualified person. One familiar with the construction and operation of the apparatus and the hazards involved.

1.1(64) Raceway. Any channel for holding wires, cables or busbars, which is designed expressly for, and used solely for, this purpose.

Raceways may be of metal or insulating material and the term includes rigid metal conduit, rigid nonmetallic conduit, flexible metal conduit, electrical metallic tubing, underfloor raceways, cellular concrete floor raceways, cellular metal floor raceways, surface metal raceways, structural raceways, wireways and busways.

1.1(65) Raintight. So constructed or protected that exposure to a beating rain will not result in the entrance of water.

1.1(66) Readily accessible. Capable of being reached quickly, for operation, renewal, or inspections, without requiring those to whom ready access is requisite to climb over or remove obstacles or to resort to portable ladders or chairs.

1.1(67) Receptacle (convenience outlet). A receptacle is a contact device installed at an outlet for the connection of an attachment plug and flexible cord.

1.1(68) Receptacle outlet. An outlet where one or more receptacles are installed.

1.1(69) Refrigeration compressor, sealed (hermetic type). A mechanical compressor consisting of a compressor and a motor, both of which are enclosed in the same sealed housing, with no external shaft nor shaft seals, the motor operating in the refrigerant atmosphere.

1.1(70) Remote-control circuit. Any electrical circuit which controls any other circuit through a relay or an equivalent device.

1.1(71) Sealable equipment. Equipment enclosed in a case or cabinet that is provided with means of sealing or locking so that live parts cannot be made accessible without opening the enclosure. The equipment may or may not be operable without opening the enclosure.

1.1(72) Service. The conductors and equipment for delivering energy from the electricity supply system to the wiring system of the premises served.

1.1(73) Service cable. The service cable is the service conductors made up in the form of a cable.

1.1(74) Service conductors. The supply conductors which extend from the street main, or from transformers to the service equipment of the premises supplied.

1.1(75) Service drop. The overhead service conductors between the last pole or other aerial support and the first point of attachment to the building or other structure.

1.1(76) Service-entrance conductors, overhead system. The service conductors between the terminals of the service equipment and a point usually outside the building, clear of building walls, where joined by tap or splice to the service drop.

1.1(77) Service-entrance conductors, underground system. The service conductors between the terminals of the service equipment and the point of connection to the service lateral.

Where service equipment is located outside the building walls, there may be no service-entrance conductors, or they may be entirely outside the building.

1.1(78) Service equipment. The necessary equipment, usually consisting of circuit breaker or switch and fuses, and their accessories, located near point of entrance of supply conductors to a building and intended to constitute the main control and means of cut-off for the supply to that building.

1.1(79) Service lateral. The underground service conductors between the street main, including any risers at a pole or other structure or from transformers, and the first point of connection to the service-entrance conductors in a terminal box inside or outside the building wall. Where there is no terminal box, the point of connection shall be considered to be the point of entrance of the service conductors into the building.

1.1(80) Service raceway. The rigid metal conduit, electrical metallic tubing, or other raceway, that encloses the service-entrance conductors.

1.1(81) Setting (of circuit breaker). The value of the current at which it is set to trip.

1.1(82) Show window. A show window is any window used or designed to be used for the display of goods or advertising material, whether it is fully or partly enclosed or entirely open at the rear, and whether or not it has a platform raised higher than the street floor level.

1.1(83) Signal circuit. Any electrical circuit which supplies energy to an appliance which gives a recognizable signal.

Such circuits include circuits for door bells, buzzers, code-calling systems and signal lights.

1.1(84) Special permission. The written consent of the authority enforcing these rules.

1.1(85) Switches.

a. General use switch. A general use switch is a switch intended for use in general distribution and branch circuits. It is rated in amperes, and it is capable of interrupting its rated current at its rated voltage.

b. General use snap switch. A form of general use switch so constructed that it can be installed in flush device boxes, or on outlet box covers, or otherwise used in conjunction with wiring systems recognized by these rules.

c. AC general use snap switch. A form of general use snap switch suitable only for

use on alternating current circuits for controlling the following:

(1) Resistive and inductive loads (including electric discharge lamps) not exceeding the ampere rating at the voltage involved.

(2) Tungsten filament lamp loads not exceeding the ampere rating at 120 volts.

(3) Motor loads not exceeding eighty percent of the ampere rating of the switches at the rated voltage.

All AC general use snap switches are marked "AC" in addition to their electrical rating.

d. AC-DC general use snap switch. A form of general use snap switch suitable for use on either direct or alternating current circuits for controlling the following:

(1) Resistive loads not exceeding the ampere rating at the voltage involved.

(2) Inductive loads not exceeding one-half the ampere rating at the voltage involved, except that switches having a marked horsepower rating are suitable for controlling motors not exceeding the horsepower rating of the switch at the voltage involved.

(3) Tungsten filament lamp loads not exceeding the ampere rating at 125 volts, when marked with the letter "T".

AC-DC general use snap switches are not generally marked AC-DC, but are always marked with their electrical rating.

e. Isolating switch. An isolating switch is a switch intended for isolating an electric circuit from the source of power. It has no interrupting rating, and it is intended to be operated only after the circuit has been opened by some other means.

f. Motor circuit switch. A switch, rated in horsepower, capable of interrupting the maximum operating overload current of a motor of the same horsepower rating as the switch at the rated voltage.

1.1(86) Switchboard. A large single panel, frame, or assembly of panels, on which are mounted, on the face or back or both, switches, overcurrent and other protective devices, buses and usually instruments. Switchboards are generally accessible from the rear as well as from the front and are not intended to be installed in cabinets.

1.1(87) Thermal cutout. An overcurrent protective device which contains a heater element in addition to and affecting a renewable fusible member which opens the circuit. It is not designed to interrupt short circuit currents.

1.1(88) Thermal protection (as applied to motors). The words, "Thermal Protection," appearing on the nameplate of a motor indicate that the motor is provided with a thermal protector.

1.1(89) Thermal protector (as applied to motors). An inherent overheating protective device which is responsive to motor current and temperature and which, when properly applied to a motor, protects the motor

against dangerous overheating due to overload or failure to start.

1.1(90) Threaded bosses or hubs. A raised portion which is thicker than the box or conduit which can be drilled, tapped or threaded to allow conduit to be attached so the box is explosion-proof.

1.1(91) Utilization equipment. Equipment which utilizes electric energy for mechanical, chemical, heating, lighting or similar useful purposes.

1.1(92) Ventilated. Provided with a means to permit circulation of air sufficient to remove an excess of heat, fumes, or vapors.

1.1(93) Volatile flammable liquid. A flammable liquid having a flash point below 100° F. or whose temperature is above its flash point.

1.1(94) Voltage of a circuit. Voltage is the greatest root-mean-square (effective) difference of potential between any two conductors of the circuit concerned.

On various systems such as three-phase four-wire, single-phase three-wire and three-wire direct current, there may be various circuits of various voltages.

1.1(95) Voltage to ground. In grounded circuits the voltage between the given conductor and that point or conductor of the circuit which is grounded; in ungrounded circuits, the greatest voltage between the given conductor and any other conductor of the circuit.

1.1(96) Watertight. So constructed that moisture will not enter the enclosing case.

1.1(97) Weatherproof. Weatherproof means so constructed or protected that exposure to the weather will not interfere with successful operation.

Raintight or watertight equipment may fulfill the requirements for "weatherproof."

However, weather conditions vary and consideration should be given to conditions resulting from snow, ice, dust, or temperature extremes.

1.2(88A)T.III Special occupancies.

1.2(1) Scope. The provisions of 1.2(5) apply to locations in which the authority enforcing these rules judges the apparatus and wiring to be subject to the conditions indicated by the following classifications. It is intended that each room, section or area (including motor and generator rooms, and rooms for the enclosure of control equipment) shall be considered individually in determining its classification. Except as modified in 1.2(5) all other applicable rules contained in these rules shall apply to electrical apparatus and wiring installed in hazardous locations.

Equipment and associated wiring approved as intrinsically safe may be installed in any hazardous location for which it is approved, and the provisions of 1.2(3) through 1.2(12) need not apply to such installation. Intrinsical-

ly safe equipment and wiring are incapable of releasing sufficient electrical energy under normal or abnormal conditions to cause ignition of a specific hazardous atmospheric mixture. Abnormal conditions will include accidental damage to any part of the equipment or wiring, insulation or other failure of electrical components, application of overvoltage, adjustment and maintenance operations, and other similar conditions.

All conduit referred to herein shall be threaded with standard conduit cutting die which provides $\frac{3}{4}$ " taper per foot. Such conduit shall be made up wrench tight to minimize sparking when fault current flows through the conduit system. Where it is impractical to make a threaded joint tight, a bonding jumper shall be utilized.

1.2(2) The intent of 1.2(88A)T.III through 1.4(88A)T.III is to require a form of construction of equipment, and of installation that will insure safe performance under conditions of proper use and maintenance. It, therefore, is assumed that inspection authorities and users will exercise more than ordinary care with regard to installation and maintenance.

The characteristics of various atmospheric mixtures of hazardous gases, vapors and dusts depend on the specific hazardous material involved. It is necessary therefore that equipment be approved not only for the class of location but also for the specific gas, vapor or dust that will be present.

For the purposes of testing and approval, various atmospheric mixtures have been grouped on the basis of their hazardous characteristics, and facilities have been made available for testing and approval of equipment for use in the following atmospheric groups:

a. Group A. Atmospheres containing acetylene;

b. Group B. Atmospheres containing hydrogen, or gases or vapors of equivalent hazard such as manufactured gas;

c. Group C. Atmospheres containing ethyl ether vapors, ethylene, or cyclopropane;

d. Group D. Atmospheres containing gasoline, hexane, naphtha, benzene, butane, propane, alcohol, acetone, benzol, lacquer solvent vapors, or natural gas;

e. Group E. Atmospheres containing metal dust, including aluminum, magnesium, and their commercial alloys, and other metals of similarly hazardous characteristics;

f. Group F. Atmospheres containing carbon black, coal or coke dust;

g. Group G. Atmospheres containing flour, starch, or grain dusts.

1.2(3) Class I locations. Class I locations are those in which flammable gases or vapors are or may be present in the air in quantities sufficient to produce explosive or ignitable mixtures. Class I locations shall include the following:

a. Class 1, Division 1. Locations (1) in which hazardous concentrations of flammable gases or vapors exist continuously, intermittently, or periodically under normal operating conditions, (2) in which hazardous concentrations of such gases or vapors may exist frequently because of repair or maintenance operations or because of leakage, or (3) in which breakdown or faulty operation of equipment or processes which might release hazardous concentrations of flammable gases or vapors, might also cause simultaneous failure of electrical equipment.

This classification usually includes locations where volatile flammable liquids or liquefied flammable gases are transferred from one container to another; interiors of spray booths and areas in the vicinity of spraying and painting operations where volatile flammable solvents are used; locations containing open tanks or vats of volatile flammable liquids; drying rooms or compartments for the evaporation of flammable solvents; locations containing fat and oil extraction apparatus using volatile flammable solvents; portions of cleaning and dyeing plants where hazardous liquids are used; gas generator rooms and other portions of gas manufacturing plants where flammable gas may escape; inadequately ventilated pump rooms for flammable gas or for volatile flammable liquids; the interiors of refrigerators and freezers in which volatile, flammable materials are stored in open, lightly stoppered, or easily ruptured containers, and all other locations where hazardous concentrations of flammable vapors or gases are likely to occur in the course of normal operations.

b. Class I, Division 2. Locations (1) in which volatile flammable liquids or flammable gases are handled, processed or used, but in which the hazardous liquids, vapors or gases will normally be confined within closed containers or closed systems from which they can escape only in case of accidental rupture or breakdown of such containers or systems, or in case of abnormal operation of equipment, (2) in which hazardous concentrations of gases or vapors are normally prevented by positive mechanical ventilation, but which might become hazardous through failure or abnormal operation of the ventilating equipment, or (3) which are adjacent to Class I, Division 1 locations, and to which hazardous concentrations of gases or vapors might occasionally be communicated unless such communication is prevented by adequate positive-pressure ventilation from a source of clean air, and effective safeguards against ventilation failure are provided.

This classification usually includes locations where volatile flammable liquids or flammable gases or vapors are used, but which, in the judgment of the rule enforcing authority, would become hazardous only in case of an accident or of some unusual operating condition. The quantity of hazardous material that might escape in case of accident, the adequacy of ventilating equipment, the total area

involved, and the record of the industry or business with respect to explosions or fires are all factors that should receive consideration in determining the classification and extent of each hazardous area.

Piping without valves, checks, meters and similar devices would not ordinarily be deemed to introduce a hazardous condition even though used for hazardous liquids or gases. Locations used for the storage of hazardous liquids or liquefied or compressed gases in sealed containers would not normally be considered hazardous unless subject to other hazardous conditions also.

Electrical conduits and their associated enclosures separated from process fluids by a single seal or barrier shall be classed as Division 2 locations if the outside of the conduit and enclosures is a nonhazardous area.

1.2(4) Class II locations. Class II locations are those which are hazardous because of the presence of combustible dust. Class II locations shall include the following:

a. Class II, Division 1. Location (1) in which combustible dust is or may be in suspension in the air continuously, intermittently, or periodically under normal operating conditions, in quantities sufficient to produce explosive or ignitable mixtures, (2) where mechanical failure or abnormal operation of machinery or equipment might cause such mixtures to be produced, and might also provide a source of ignition through simultaneous failure of electrical equipment, operation or protection devices, or from other causes, or (3) in which dusts of an electrically conducting nature may be present.

This classification usually includes the working areas of grain handling and storage plants; rooms containing grinders or pulverizers, cleaners, graders, scalpels, open conveyors or spouts, open bins or hoppers, mixers, or blenders, automatic or hopper scales, packing machinery, elevator heads and boots, stock distributors, dust and stock collectors (except all-metal collectors vented to the outside), and all similar dust producing machinery and equipment in grain processing plants, starch plants, sugar pulverizing plants, malting plants, hay grinding plants, and other occupancies of similar nature; coal pulverizing plants (except where the pulverizing equipment is essentially dust-tight); all working areas where metal dusts and powders are produced, processed, handled, packed or stored (except in tight containers); and all other similar locations where combustible dust may, under normal operating conditions, be present in the air in quantities sufficient to produce explosive or ignitable mixtures.

Combustible dusts which are electrically nonconducting include dusts produced in the handling and processing of grain and grain products, pulverized sugar and cocoa, dried egg and milk powders, pulverized spices, starch and pastes, potato and wood flour, oil meal from beans and seed, dried hay, and other or-

ganic materials which may produce combustible dusts when processed or handled. Electrically conducting nonmetallic dusts containing magnesium or aluminum are particularly hazardous and every precaution must be taken to avoid ignition and explosion.

b. Class II, Division 2. Locations in which combustible dust will not normally be in suspension in the air, or will not be likely to be thrown into suspension by normal operation of equipment or apparatus, in quantities sufficient to produce explosive or ignitable mixtures, but (1) where deposits or accumulations of such dust may be sufficient to interfere with the safe dissipation of heat from electrical equipment or apparatus, or (2) where such deposits or accumulations of dust on, in, or in the vicinity of electrical equipment might be ignited by arcs, sparks or burning material from such equipment.

Locations where dangerous concentrations of suspended dust would not be likely, but where dust accumulations might form on, or in the vicinity of electrical equipment, would include rooms and areas containing only closed spouting and conveyors, closed bins or hoppers or machines and equipment from which appreciable quantities of dust would escape only under abnormal operating conditions; rooms or areas adjacent to locations described in 1.2 (4) "a" and into which explosive or ignitable concentrations of suspended dust might be communicated only under abnormal operating conditions; rooms or areas where the formation of explosive or ignitable concentrations of suspended dust is prevented by the operation of effective dust control equipment; warehouses and shipping rooms where dust producing materials are stored or handled only in bags or containers; and other similar locations.

1.2(5) Class III locations. Class III locations are those which are hazardous because of the presence of easily ignitable fibers or flyings, but in which such fibers or flyings are not likely to be in suspension in the air in quantities sufficient to produce ignitable mixtures. Class III locations shall include the following:

a. Class III, Division 1. Locations in which easily ignitable fibers or materials producing combustible flyings are handled, manufactured or used.

Such locations usually include some parts of rayon, cotton and other textile mills; combustible fiber manufacturing and processing plants; cotton gins and cottonseed mills; flax processing plants; clothing manufacturing plants; woodworking plants; and establishments and industries involving similar hazardous processes or conditions.

Easily ignitable fibers and flyings include rayon, cotton (including cotton linters and cotton waste), sisal or henequen, istle, jute, hemp, tow, cocoa fiber, oakum, baled waste kapok, Spanish moss, excelsior and other materials of similar nature.

b. Class III, Division 2. Locations in which easily ignitable fibers are stored or handled except in process of manufacture.

1.3(88A)T.III Class I installations.

1.3(1) General. This rule shall apply to the installation of electrical wiring and equipment in locations classified as Class I under 1.2(3) except as modified by this section.

1.3(2) Transformers and capacitors. The installation of transformers and capacitors shall conform to the following:

Class I, Division 1. In Class I, Division 1 locations, transformers and capacitors shall conform to the following:

a. Containing a liquid that will burn. Transformers and capacitors containing a liquid that will burn shall be installed only in approved vaults, which shall conform to the following:

(1) *Location.* Vaults shall be located where they can be ventilated to the outside air without using flues or ducts wherever such arrangement is practicable.

(2) *Walls, roof, and floor.* The walls and roofs of vaults shall be constructed of reinforced concrete, brick, load-bearing tile, concrete block, or other fire resistive constructions which have adequate structural strength for the conditions, and a minimum fire resistance of 2½ hours. The floors of vaults in contact with the earth shall be of concrete not less than four inches thick but when the vault is constructed with a vacant space or other stories below it, the floor shall have adequate structural strength for the load imposed thereon and a minimum fire resistance of 2½ hours.

(3) *Doorways.* Vault doorways shall be protected as follows:

Type of door. Each doorway leading into a building shall be provided with a tight-fitting door of a type approved for openings in Class A situations. The authority enforcing these rules may require such a door for an exterior wall opening or on each side of an interior wall opening where conditions warrant.

Sills. A door sill or curb of sufficient height to confine within the vault the oil from the largest transformer shall be provided and in no case shall the height be less than four inches.

Locks. Entrance doors shall be equipped with locks, and doors shall be kept locked, access being allowed only to qualified persons. Locks and latches shall be so arranged that the door may be readily and quickly opened from the inside.

(4) *Ventilation.* The ventilation shall be adequate to prevent a transformer temperature in excess of the manufacturer's recommendations.

(5) *Ventilation openings.* When required by section 1.3(2)"a"(4), openings for ventilation shall be provided in accordance with the following:

Location. Ventilation openings shall be located as far away as possible from doors, windows, fire escapes, and combustible material.

Arrangement. Vaults ventilated by natural circulation of air may have roughly half of the total area of openings required for ventilation in one or more openings near the floor and the remainder in one or more openings in the roof or in the sidewalls near the roof, or all of the area required for ventilation may be provided in one or more openings in or near the roof.

Size. In the case of vaults ventilated to an outdoor area without using ducts or flues the combined net area of all ventilating openings after deducting the area occupied by screens, gratings or louvers, shall be not less than three square inches per kva of transformer capacity in service, except that the net area shall be not less than one square foot for any capacity under fifty kva.

Covering. Ventilation openings shall be covered with durable gratings, screens, or louvers, according to the treatment required in order to avoid unsafe conditions.

Dampers. Where automatic dampers are used in the ventilation openings of vaults containing oil-insulated transformers, the actuating device should be made to function at a temperature resulting from fire and not at a temperature which might prevail as a result of an overheated transformer or bank of transformers. Automatic dampers should be so designed and constructed to minimize the possibility of accidental closing.

Ducts. Ventilating ducts shall be constructed of fire-resistant material.

Drainage. Where practicable, vaults containing more than one hundred kva transformer capacity shall be provided with a drain or other means which will carry off any accumulation of oil or water in the vault unless local conditions make this impracticable. The floor shall be pitched to the drain when provided.

Water pipes and accessories. Any pipe or duct systems foreign to the electrical installation should not enter or pass through a transformer vault. Where the presence of such foreign systems cannot be avoided, appurtenances thereto which require maintenance at regular intervals shall not be located inside the vault. Arrangements shall be made where necessary to avoid possible trouble from condensation, leaks and breaks in such foreign systems. Piping or other facilities provided for fire protection or for water-cooled transformers are not deemed to be foreign to the electrical installation.

Storage and vaults. Materials shall not be stored in transformer vaults. And in addition, (1) there shall be no door or other communicating opening between the vault and the hazardous area, (2) ample ventilation shall be provided for the continuous removal of hazardous gases or vapor, (3) vent openings or ducts shall lead to a safe location outside of build-

ings, and (4) vent ducts and openings shall be of sufficient area to relieve explosion pressures within the vault, and all portions of vent ducts within the buildings shall be of reinforced concrete construction.

b. Not containing a liquid that will burn. Transformers and capacitors which do not contain a liquid that will burn shall (1) be installed in vaults conforming to the requirements of section 1.3(2) "a" or "b", or (2) be approved for Class I locations (explosion-proof).

Class I, Division 2. In Class I, Division 2, locations, transformers and capacitors shall conform to the following:

a. Dry-type transformers installed indoors. Transformers rated 112½ kva or less shall have a separation of at least twelve inches from combustible material unless separated therefrom by a fire-resistant heat-insulating barrier, or unless of a rating not exceeding 600 volts and completely enclosed except for ventilating openings.

Transformers of more than 112½ kva rating shall be installed in a transformer room of fire-resistant construction unless they are constructed with 80°C. rise (Class B) or 150°C. rise (Class H) insulation, and are separated from combustible material not less than six feet horizontally and twelve feet vertically or are separated therefrom by a fire-resistant heat-insulating barrier.

Transformers rated more than 35,000 volts shall be installed in a vault. See 1.3 (2) "a".

b. Askarel-insulated transformers installed indoors. Askarel-insulated transformers rated in excess of twenty-five kva shall be furnished with a pressure-relief vent. Where installed in a poorly ventilated place they shall be furnished with a means for absorbing any gases generated by arcing inside the case, or the pressure relief vent shall be connected to a chimney or flue which will carry such gases outside the building. Askarel-insulated transformers rated more than 35,000 volts shall be installed in a vault.

c. Oil-insulated transformers installed indoors. Oil-insulated transformers shall be installed in a vault constructed as specified in this section except as follows:

(1) *Not over 112½ kva total capacity.*

The provisions for transformer vaults specified in 1.3(2) apply except that the vault may be constructed of reinforced concrete not less than four inches thick.

(2) *Not over 600 volts.* A vault is not required provided suitable arrangements are made where necessary to prevent a transformer oil fire igniting other materials, and the total transformer capacity in one location does not exceed ten kva in a section of the building classified as combustible, or seventy-five kva where the surrounding structure is classified as fire-resistant construction.

(3) *Furnace transformers.* Electric furnace transformers of a total rating not exceeding seventy-five kva may be installed without a vault in a building or room of fire-resist-

ant construction provided suitable arrangements are made to prevent a transformer oil fire spreading to other combustible material.

(4) *Detached buildings.* Transformers may be installed in a building which does not conform with the provisions specified in these rules for transformer vaults provided neither the building nor its contents present a fire hazard to any other building or property, and provided the building is used only in supplying electric service and the interior is accessible only to qualified persons.

d. Oil-insulated transformers installed outdoors. Combustible material, combustible buildings and parts of buildings, fire escapes, door and window openings shall be safeguarded from fires originating in oil-insulated transformers installed on, attached to, or adjacent to a building or combustible material. Space separations, fire-resistant barriers, automatic water spray systems and enclosures which confine the oil of a ruptured transformer tank are recognized safeguards. One or more of these safeguards shall be applied according to the degree of hazard involved in cases where the transformer installation presents a fire hazard. Oil enclosures may consist of fire-resistant dikes, curbed areas or basins, or trenches filled with coarse crushed stone. Oil enclosures shall be provided with trapped drains in cases where the exposure and the quantity of oil involved are such that removal of oil is important.

1.3(3) Meters, instruments and relays. The installation of meters, instruments and relays shall conform to the following:

Class I, Division 1. In Class I, Division 1 location, meters, instruments and relays, including kilowatt-hour meters, instrument transformers and resistors, rectifiers and thermionic tubes, shall be provided with enclosures approved for Class I locations.

Class I, Division 2. In Class I, Division 2 locations, meters, instruments and relays shall conform to the following:

a. Contacts. Switches and circuit breakers, and make-and-break contacts of push buttons, relays, and alarm bells or horns, shall have enclosures approved for Class I locations, unless general purpose enclosures are provided, and current interrupting contacts are (1) immersed in oil, (2) enclosed within a chamber hermetically sealed against the entrance of gases or vapors, or (3) in circuits which under normal conditions do not release sufficient energy to ignite a specific hazardous atmospheric mixture.

b. Resistors and similar equipment. Resistors, resistance devices, thermionic tubes, and rectifiers, which are used in or in connection with meters, instruments and relays, shall conform to 1.3(3) Class I, Division 1, except that enclosures may be of general purpose type when such equipment is without make-and-break or sliding contacts (other than as provided in 1.3(3) "a" above) and when the maximum operating temperature of any ex-

posed surface will not exceed eighty percent of the ignition temperature in degrees centigrade of the gas or vapor involved.

c. Without make-and-break contacts. Transformer windings, impedance coils, solenoids, and other windings which do not incorporate sliding or make-and-break contacts shall be provided with enclosures which may be of general purpose type where vents adequate to permit prompt escape of any gases or vapors are provided.

d. General purpose assemblies. Where an assembly is made up of components for which general purpose enclosures are acceptable under 1.3 (3) "a", "b", and "c", a single general purpose enclosure is acceptable for the assembly. Where such an assembly includes any of the equipment described in 1.3 (3) "b", the maximum obtainable surface temperature of any component of the assembly shall be clearly and permanently indicated on the outside of the enclosure.

e. Fuses. Where general purpose enclosures are permitted under 1.3(3) "a", "b", "c", and "d", fuses for overcurrent protection of the instrument circuits may be mounted in general purpose enclosures provided such fuses do not exceed three ampere rating at 120 volts and provided each such fuse is preceded by a switch conforming to 1.3 (3) "a".

1.3(4) Wiring methods. Wiring methods shall conform to the following:

Class I, Division 1. In Class I, Division 1 locations, threaded rigid metal conduit or Type MI cable with termination fittings approved for the location shall be the wiring method employed. All boxes, fittings, and joints shall be threaded for connection to conduit or cable terminations, and shall be explosion-proof. Threaded joints shall be made up with at least five threads fully engaged. Type MI cable shall be installed and supported in a manner to avoid tensile stress at the termination fittings. Where necessary to employ flexible connections, as at motor terminals, flexible fittings approved for Class I locations (explosion-proof) shall be used.

Class I, Division 2. In Class I, Division 2 locations, threaded rigid metal conduit or Type MI cable with termination fittings approved for Class I locations, or approved Type MC or ALS cable with termination fittings approved for Class I locations shall be the wiring method employed. Type MI, MC or ALS cable shall be installed in a manner to avoid tensile stress at the termination fittings. Boxes, fittings and joints need not be explosion-proof except as required by 1.3(5) "a" and "b". Where provision must be made for limited flexibility, as at motor terminals, flexible metal fittings, flexible metal conduit with approved fittings, or flexible cord approved for extra hard usage and provided with approved bushed fittings shall be used. An additional conductor for grounding shall be included in the flexible cord unless other acceptable means of grounding are provided.

1.3(5) *Sealing and drainage.* Seals are provided in conduit and cable systems to prevent the passage of gases, vapors or flames from one portion of the electrical installation to another through the conduit. Such communications through Type MI cable is inherently prevented by construction of the cable, but sealing compound is used in cable termination fittings to exclude moisture and other fluids from the cable insulations, and shall be of a type approved for the conditions of use. Seals in conduit and cable systems shall conform to the following:

Class I, Division 1. In Class I, Division 1 locations, seals shall be located as follows:

a. In each conduit run entering an enclosure for switches, circuit breakers, fuses, relays, resistors or other apparatus which may produce arcs, sparks or high temperatures. Seals shall be placed as close as practicable and in no case more than eighteen inches from such enclosures.

b. In each conduit run of two-inch size or larger entering the enclosure or fitting housing terminals, splices or taps, and within eighteen inches of such enclosure or fitting.

Where two or more enclosures for which seals are required under 1.3(5) "a" and "b", are connected by nipples or by runs of conduit not more than thirty-six inches long, a single seal in each such nipple connection or run of conduit would be sufficient if located not more than eighteen inches from either enclosure. Ordinary conduit fittings of the "L", "T" or "Cross" type would not usually be classed as enclosures when not larger than the trade size of the conduit.

c. In each conduit run leaving the Class I, Division 1 hazardous area. The sealing fitting may be located on either side of the boundary of such hazardous area, but shall be so designed and installed that any gases or vapors which may enter the conduit system, within the Division 1 hazardous area, will not enter or be communicated to the conduit beyond the seal. There shall be no union, coupling, box or fitting in the conduit between the sealing fitting and the point at which the conduit leaves the Division 1 hazardous area.

Class I, Division 2. In Class I, Division 2 locations, seals shall be located as follows:

a. For conduit connections to enclosures which are required to be approved for Class I locations, seals shall be provided in conformance to 1.3(5) "a" and "b". All portions of the conduit run or nipple between the seal and such enclosure shall conform to 1.3(4) Class I, Division 1.

b. In each conduit run passing from the Class I, Division 2 hazardous area into a non-hazardous area. The sealing fitting may be located on either side of the boundary of such hazardous area, but shall be so designed and installed that any gases or vapors which may enter the conduit system, within the Division 2 hazardous area, will not enter or be communicated to the conduit beyond the seal. Rigid conduit shall be used between the sealing

fitting and the point at which the conduit leaves the hazardous area, and a threaded connection shall be used at the sealing fitting. There shall be no union, coupling, box or fitting in the conduit between the sealing fitting and the point at which the conduit leaves the hazardous area.

Class I, Divisions 1 and 2. Where seals are required, they shall conform to the following:

a. *Fittings.* Enclosures for connections or for equipment shall be provided with approved integral means for sealing, or sealing fittings approved for Class I locations shall be used. Sealing fittings shall be accessible.

b. *Compound.* Sealing compound shall be approved for the purpose, shall not be affected by the surrounding atmosphere or liquids, and shall not have a melting point of less than 93°C. (200°F.).

c. *Thickness of compound.* In the completed seal, the minimum thickness of the sealing compound shall be not less than the trade size of the conduit and in no case less than 5/8 inch.

d. *Splices and taps.* Splices and taps shall not be made in fittings intended only for sealing with compound, nor shall other fittings in which splices or taps are made, be filled with compound.

e. *Assemblies.* In an assembly where equipment which may produce arcs, sparks or high temperatures is located in a compartment separate from the compartment containing splices or taps, and an integral seal is provided where conductors pass from one compartment to the other, the entire assembly shall be approved for Class I locations. Seals in conduit connections to the compartment containing splices or taps shall be provided in Class I, Division 1 locations where required by 1.3(5) "b".

f. *Drainage.*

(1) *Control equipment.* Where there is probability that liquid or other condensed vapor may be trapped within enclosures for control equipment or at any point in the raceway system, approved means shall be provided to prevent accumulation or to permit periodic draining of such liquid or condensed vapor.

(2) *Motor and generators.* Where the authority enforcing these rules judges that there is probability that liquid or condensed vapor may accumulate within motors or generators, joints and conduit systems shall be arranged to minimize entrance of liquid. If means to prevent accumulation or to permit periodic draining are judged necessary, such means shall be provided at the time of manufacture, and shall be deemed an integral part of the machine.

(3) *Canned pumps, process connections* for flow, pressure or analysis measurement, frequently depend upon a single seal diaphragm or tube to prevent process fluids from entering the electrical conduit system. An additional approved seal or barrier shall be provided with an adequate drain between the

seals in such a manner that leaks would be obvious.

See also the third paragraph in 1.2(3) "b".

1.3(6) Switches, circuit breakers, motor controllers and fuses. Switches, circuit breakers, motor controllers and fuses shall conform to the following:

Class I, Division 1. In Class I, Division 1 locations, switches, circuit breakers, motor controllers and fuses, including push buttons, relays and similar devices, shall be provided with enclosures, and the enclosure in each case together with the enclosed apparatus shall be approved as a complete assembly for use in Class I locations.

Class I, Division 2. Switches, circuit breakers, motor controllers and fuses in Class I, Division 2 locations shall conform to the following:

a. Type required. Circuit breakers, motor controllers and switches intended to interrupt current in the normal performance of the function for which they are installed shall be provided with enclosures approved for Class I locations, unless general purpose enclosures are provided and (1) the interruption of current occurs within a chamber hermetically sealed against the entrance of gases and vapors, or (2) the current interrupting contacts are oil-immersed and the device is approved for locations of this class and division.

This includes service and branch circuit switches and circuit breakers; motor controllers, including push buttons, pilot switches, relays and motor-overload protective devices; and switches and circuit breakers for the control of lighting and appliance circuits. Oil-immersed circuit breakers and controllers of ordinary general use type may not confine completely the arc produced in the interruption of heavy overloads, and specific approval for locations of this class and division is therefore necessary.

b. Isolating switches. Enclosures for disconnecting and isolating switches without fuses and which are not intended to interrupt current may be of general purpose type.

c. Fuses. For the protection of motors, appliances and lamps, except as provided in 1.3(6)"d", (1) standard plug or cartridge fuses may be used provided they are placed within enclosures approved for the purpose and for the location, or (2) fuses of a type in which the operating element is immersed in oil or other approved liquid, or is enclosed within a chamber hermetically sealed against the entrance of gases and vapors may be used provided they are approved for the purpose and are placed within general purpose enclosures.

d. Fuses or circuit breakers for overcurrent protection. When not more than ten sets of approved enclosed fuses, or not more than ten circuit breakers which are not intended to be used as switches for the interruption of current, are installed for branch or feeder circuit protection in any one room, area or section of this class and division, the enclosures for such

fuses or circuit breakers may be of general purpose type, provided the fuses or circuit breakers are for the protection of circuits or feeders supplying lamps in fixed positions only.

A set of fuses is construed to mean a group containing as many fuses as are required to perform a single protective function in a circuit. For example, a group of three fuses protecting an ungrounded three-phase circuit, and a single fuse protecting the ungrounded conductor of an identified two-wire single-phase circuit, would each be considered as a set of fuses. Fuses conforming to 1.3(6)"c" need not be included in counting the ten sets of fuses permitted in general purpose enclosures.

1.3(7) Control transformers and resistors. Transformers, impedance coils and resistors used as or in conjunction with control equipment for motors, generators and appliances shall conform to the following:

Class I, Division 1. In Class I, Division 1 locations, transformers, impedance coils and resistors, together with any switching mechanism associated with them, shall be provided with enclosures approved for Class I locations (explosion-proof).

Class I, Division 1. In Class I, Division 1 locations, control transformers and resistors shall conform to the following:

a. Switching mechanisms. Switching mechanisms used in conjunction with transformers, impedance coils and resistors shall conform to 1.3(6) Class I, Division 2.

b. Coils and windings. Enclosures for windings of transformers, solenoids, or impedance coils may be of general purpose type, but shall be provided with vents adequate to permit prompt escape of gases or vapors that may enter the enclosure.

c. Resistors. Resistors shall be provided with enclosures and the assembly shall be approved for Class I locations, unless resistance is nonvariable and maximum operating temperature, in degrees centigrade, will not exceed eighty percent of the ignition temperature of the gas or vapor involved.

1.3(8) Motors and generators. Motors and generators shall conform to the following:

Class I, Division 1. In Class I, Division 1 locations, motors, generators and other rotating electrical machinery shall be (1) approved for Class I locations (explosion-proof), or (2) of the totally enclosed type supplied with positive-pressure ventilation from a source of clean air with discharge to a safe area, so arranged to prevent energizing of the machine until ventilation has been established and the enclosure has been purged with at least ten volumes of air, and also arranged to automatically de-energize the equipment when the air supply fails, or (3) of the totally enclosed inert-gas-filled type supplied with a suitable reliable source of inert gas for pressuring the enclosure and arranged to automatically de-energize the equipment when the gas supply fails. Totally enclosed motors of types "2" or "3" shall have no external surface with an operat-

ing temperature in degrees centigrade in excess of eighty percent of the ignition temperature of the gas or vapor involved. Appropriate devices shall also be provided to detect any increase in temperature of the motor beyond design limits and automatically de-energize the equipment. Auxiliary equipment shall be of a type approved for the location in which it is installed.

Class I, Division 2. In Class I, Division 2 locations, motors, generators and other rotating electrical machinery in which are employed sliding contacts, centrifugal or other types of switching mechanism (including motor overcurrent devices), or integral resistance devices, either while starting or while running, shall be approved for Class I locations (explosion-proof), unless such sliding contacts, switching mechanisms and resistance devices are provided with enclosures approved for such locations.

This rule does not prohibit installation of open or nonexplosion-proof enclosed motors, such as squirrel cage induction motors, without brushes and switching mechanisms, in Class I, Division 2 locations.

1.3(9) Lighting fixtures. Lamps shall be installed in fixtures which shall conform to the following:

Class I, Division 1. In Class I, Division 1 locations, lighting fixtures shall conform to the following:

a. Approved fixtures. Each fixture shall be approved as a complete assembly for locations of this class, and shall be clearly marked to indicate the maximum wattage of lamps for which it is approved. Fixtures intended for portable use shall be specifically approved as a complete assembly for that use.

b. Physical damage. Each fixture shall be protected against physical damage by a suitable guard or by location.

c. Pendant fixtures. Pendant fixtures shall be suspended by and supplied through threaded rigid conduit stems and threaded joints shall be provided with setscrews or other effective means to prevent loosening. For stems longer than twelve inches, permanent and effective bracing against lateral displacement shall be provided at a level not more than twelve inches above the lower end of the stem, or flexibility in the form of a fitting of flexible connector approved for the purpose and for the location shall be provided not more than twelve inches from the point of attachment to the supporting box or fitting.

d. Supports. Boxes, box assemblies or fittings used for the support of lighting fixtures shall be approved for the purpose and for Class I locations.

Class I, Division 2. In Class I, Division 2 locations lighting fixtures shall conform to the following:

a. Portable lamps. Portable lamps shall conform to 1.3(9) "a".

b. Fixed lighting. Lighting fixtures for fixed lighting shall be protected from physical

damage by suitable guards or by location. Where there is danger that falling sparks or hot metal from lamps or fixtures might ignite localized concentrations of flammable vapors or gases, suitable enclosures or other effective protective means shall be provided. Where lamps are of a size or type which may, under normal operating conditions, reach surface temperatures exceeding eighty percent of the ignition temperature in degrees centigrade of the gas or vapor involved, fixtures shall conform to 1.3(9) "a".

c. Pendant fixtures. Pendant fixtures shall be suspended by threaded rigid conduit stems or by other approved means. For rigid stems longer than twelve inches, permanent and effective bracing against lateral displacement shall be provided at a level not more than twelve inches above the lower end of the stem, or flexibility in the form of a fitting or flexible connector approved for the purpose shall be provided not more than twelve inches from the point of attachment to the supporting box or fitting.

d. Supports. Boxes, box assemblies, or fittings used for the support of lighting fixtures shall be approved for the purpose.

e. Switches. Switches which are a part of an assembled fixture or of an individual lampholder shall conform to the requirements of 1.3(6) "a".

f. Starting equipment. Starting and control equipment for mercury-vapor and fluorescent lamps shall conform to the requirements of 1.3(7) Class I, Division 2.

1.3(10) Utilization equipment, fixed and portable. Utilization equipment, fixed and portable, shall conform to the following:

Class I, Division 1. In Class I, Division 1 locations, utilization equipment including electrically-heated and motor-driven equipment shall be approved for Class I locations.

Class I, Division 2. In Class I, Division 2 locations, utilization equipment, fixed and portable, shall conform to the following:

a. Heaters. Electrically-heated utilization equipment shall be approved for Class I locations.

b. Motors. Motors of motor-driven utilization equipment shall conform to 1.3(8) Class I, Division 2.

c. Switches, circuit breakers, and fuses. Switches, circuit breakers and fuses shall conform to 1.3(6) Class I, Division 2.

1.3(11) Flexible cords, Class I, Divisions 1 and 2. A flexible cord may be used only for connection between a portable lamp or other portable utilization equipment and the fixed portion of its supply circuit and where used shall (a) be of a type approved for extra hard usage, (b) contain, in addition to the conductors of the circuit, a grounding conductor conforming to the following:

Grounded conductor identification. One conductor of flexible cords shall have a continuous marker readily distinguishing it from the other

conductor or conductors. The identification shall consist of one of the following:

Colored braid. A braid finished to show a white or natural gray color and the braid on the other conductor or conductors finished to show a readily distinguishable solid color or colors.

Tracer in braid. A tracer in a braid of any color contrasting with that of the braid and no tracer in the braid of the other conductor or conductors. No tracer shall be used in the braid of any conductor of a flexible cord which contains a conductor having a braid finished to show white or natural gray, except in the case of Types C, PD, and PO cords having the braids on the individual conductors finished to show white or natural gray. In such C, PD, and PO cords the identifying marker may consist of the solid white or natural gray finish on one conductor provided there is a colored tracer in the braid of each other conductor.

Colored insulation. A white or natural gray insulation on one conductor and insulation of a readily distinguishable color or colors on the other conductor or conductors for cords having no braids on the individual conductors (except cords which have insulation on the individual conductors integral with the jacket). The insulation may be covered with an outer finish to provide the desired color.

Colored separator. A white or natural gray separator on one conductor and a separator of a readily distinguishable solid color on the other conductor or conductors of cords having insulation on the individual conductors integral with the jacket.

Tinned conductors. One conductor having the individual strands tinned and the other conductor or conductors having the individual strands untinned for cords having insulation on the individual conductors integral with the jacket.

Surface marking. A stripe, ridge or groove so located on the exterior of the cord as to identify one conductor for cords having insulation on the individual conductors integral with the jacket.

(c) be connected to terminals or to supply conductors in an approved manner, (d) be supported by clamps or by other suitable means in such a manner that there will be no tension on the terminal connections, and (e) suitable seals shall be provided where the flexible cord enters boxes, fittings or enclosures of explosion-proof type.

Refer to section 1.3(13) when flexible cords are exposed to liquids having a deleterious effect on the conductor insulation.

1.3(12) Receptacles and attachment plugs, Class I, Divisions 1 and 2. Receptacles and attachment plugs shall be of the type providing for connection to the grounding conductor of the flexible cord, and shall be approved for Class I locations.

1.3(13) Conductor insulation, Class I, Divisions 1 and 2. Where condensed vapors or liquids may collect on or come in contact with

the insulation on conductors, such insulation shall be of a type approved for use under such conditions or the insulation shall be protected by a sheath of lead or by other approved means.

1.3(14) Signal, alarm, remote-control and communication systems. Signal, alarm, remote-control, and communication systems shall conform to the following:

Class I, Division 1. In Class I, Division 1 locations, all apparatus and equipment of signaling, alarm, remote-control and communication systems, irrespective of voltage, shall be approved for Class I locations, and all wiring shall conform to 1.3(4) Class I, Division 1 and 1.3(5) Class I, Division 1, and Class I, Divisions 1 and 2.

Class I, Division 2. In Class I, Division 2 locations, signal, alarm, remote-control and communication systems shall conform to the following:

a. Contacts. Switches and circuit breakers, and make-and-break contacts of push buttons, relays, and alarm bells or horns, shall have enclosures approved for Class I locations, unless general purpose enclosures are provided and current interrupting contacts are (1) immersed in oil, or (2) enclosed within a chamber hermetically sealed against the entrance of gases or vapors, or (3) in circuits which under normal conditions do not release sufficient energy to ignite a specific hazardous atmospheric mixture.

b. Resistors and similar equipment. Resistors, resistance devices, thermionic tubes and rectifiers shall conform to 1.3(3) "b".

c. Protectors. Enclosures which may be of general purpose type shall be provided for lightning protective devices and for fuses.

d. All wiring shall conform to 1.3(4) Class I, Division 2; 1.3(5) Class I, Division 2 and Class I, Divisions 1 and 2.

1.3(15) Live parts, Class I, Divisions 1 and 2. There shall be no exposed live parts.

1.3(16) Grounding, Class I, Divisions 1 and 2. Wiring and equipment shall be grounded in conformity with the following:

a. Exposed parts. The exposed non-current-carrying metal parts of equipment such as the frames or metal exteriors of motors, fixed or portable lamps or other utilization equipment, lighting fixtures, cabinets, cases, and conduit, shall be grounded to prevent a potential above ground on the equipment.

b. Bonding. The locknut-bushing and double-locknut types of contacts shall not be depended upon for bonding purposes, but bonding jumpers with proper fittings or other approved means shall be used. Such means of bonding shall apply to all intervening raceways, fittings, boxes, and enclosures, between hazardous areas and the point of grounding for service equipment. Where flexible conduit is used as permitted in 1.3(4) Class I, Division

2 bonding jumpers with proper fitting shall be provided around such conduit.

c. Lightning protection. Each ungrounded service conductor of a wiring system in a Class I location, when supplied from an overhead line in an area where lightning disturbances are prevalent, shall be protected by a lightning protective device of proper type. Lightning protective devices shall be connected to the service conductors on the supply side of the service disconnecting means, and shall be bonded to the raceway system at the service entrance.

Also refer to 1.4(3).

d. Grounded service conductor bonded to raceway. Wiring in a Class I location when supplied from a grounded alternating current supply system in which a grounded conductor is a part of the service, shall have the grounded service conductor bonded to the raceway system and to the grounding conductor for the raceway system. The bonding connection to the grounded service conductor shall be made on the supply side of the service disconnecting means.

e. Transformer ground bonded to raceway. Wiring in a Class I location, when supplied from a grounded alternating current supply system in which no grounded conductor is a part of the service, shall be provided with a metallic connection between the supply system ground and the raceway system at the service entrance. The metallic connection shall have an ampacity not less than 1/5 that of the service conductors, and shall in no case be smaller than No. 10 when of soft copper, or No. 12 when of medium or hard-drawn copper.

f. Multiple grounds. Where it is necessary to abandon one or more grounding connections to avoid objectionable passage of current over the grounding conductors, the connection required in 1.3(16)"d" and "e" shall not be abandoned while any other grounding connection remains connected to the supply system.

1.4(88A) T. III Class II installations.

1.4(1) General. This rule shall apply to the installation of electrical wiring and apparatus in locations classified as Class II under 1.2(88A)T. III, except as modified by this section.

Equipment installed in Class II locations shall be able to function at full rating without developing surface temperatures high enough to cause excessive dehydration or gradual carbonization of any organic dust deposits that may occur. Dust which is carbonized or is excessively dry is highly susceptible to spontaneous ignition. In general, maximum surface temperatures under actual operating conditions shall not exceed 165°C. (329°F.) for equipment which is not subject to overloading, and 120°C. (248°F.) for equipment such as motors, power transformers, which may be overloaded.

Equipment and wiring of the type defined in 1.1(88A)T. III as explosion-proof is not required in Class II locations, and may not be acceptable unless approved for such locations.

1.4(2) Transformers and capacitors. The installation of transformers and capacitors shall conform to the following:

a. Class II, Division 1. In Class II, Division 1 locations, transformers and capacitors shall conform to the following:

(1) *Containing a liquid that will burn.* Transformers and capacitors containing a liquid that will burn shall be installed only in approved vaults conforming to sections 1.3(2) "a", (1) to (5) inclusive, and in addition (a) door or other openings communicating with the hazardous area shall have self-closing fire doors on both sides of the wall, and the doors shall be carefully fitted and provided with suitable seals (such as weather stripping) to minimize the entrance of dust into the vault, (b) vent openings and ducts shall communicate only with the outside air, and (c) suitable pressure-relief openings communicating with the outside air shall be provided.

(2) *Not containing a liquid that will burn.* Transformers and capacitors which do not contain a liquid that will burn shall (a) be installed in vaults conforming to 1.3(2)"a", (1) to (5) inclusive, or (b) be approved as a complete assembly including terminal connections for Class II locations.

(3) *Metal dusts.* No transformer or capacitor shall be installed in a location where dust from magnesium, aluminum, aluminum bronze powders, or other metals of similarly hazardous characteristics may be present.

b. Class II, Division 2. In Class II, Division 2 locations, transformers and capacitors shall conform to the following:

(1) *Containing a liquid that will burn.* Transformers and capacitors containing a liquid that will burn shall be installed in vaults conforming to 1.3(2)"a", (1) to (5) inclusive.

(2) *Containing askarel.* Transformers containing askarel and rated in excess of twenty-five kva shall (a) be provided with pressure-relief vents, (b) be provided with means for absorbing any gases generated by arcing inside the case, or the pressure-relief vents shall be connected to a chimney or flue which will carry such gases outside the building and (c) have an air space of not less than six inches between the transformer cases and any adjacent combustible material.

(3) *Dry-type transformers.* Dry-type transformers shall be installed in vaults or shall (a) have their windings and terminal connections enclosed in tight metal housings without ventilating or other openings, and (b) operate at voltages not exceeding 600 volts.

1.4(3) Surge protection, Class II, Divisions 1 and 2. In geographical locations where lightning disturbances are prevalent, wiring

systems in Class II locations shall, when supplied from overhead lines, be suitably protected against high-voltage surges. This protection shall include suitable lightning protective devices, interconnection of all grounds, and surge-protective capacitors.

Interconnection of all grounds shall include grounds for primary and secondary lightning protective devices, secondary system grounds if any, and grounds of conduit and equipment of the interior wiring system. For ungrounded secondary systems, secondary lightning protective devices may be provided both at the service and at the point where the secondary system receives its supply, and the intervening secondary conductors may be accepted as the metallic connection between the secondary protective devices, provided grounds for the primary and secondary devices are metallically interconnected at the supply end of the secondary system and the secondary devices are grounded to the raceway system at the load end of the secondary system.

Surge protective capacitors shall be of a type especially designed for the duty, shall be connected to each ungrounded service conductor, and shall be grounded to the interior conduit system. Capacitors shall be protected by thirty-ampere fuses of suitable type and voltage rating, or by automatic circuit breakers of suitable type and rating and shall be connected to the supply conductors on the supply side of the service disconnecting means.

1.4(4) Wiring methods. Wiring methods shall conform to the following:

a. Class II, Division 1. In Class II, Division 1 locations, threaded rigid metal conduit or Type MI cable with termination fittings approved for the location shall be the wiring method employed. Type MI cable shall be installed and supported in a manner to avoid tensile stress at the termination fittings.

(1) *Fittings and boxes.* Fittings and boxes shall be provided with threaded bosses or hubs for connection to conduit or cable terminations, shall have close fitting covers, and shall have no openings (such as holes for attachment screws) through which dust might enter, or through which sparks or burning material might escape. Fittings and boxes in which taps, joints or terminal connections are made, or which are used in locations where dusts are of an electrically conducting nature shall be dust-ignition-proof and approved for Class II locations.

(2) *Flexible connections.* Where necessary to employ flexible connections, dust-tight flexible connectors, flexible metal conduit with approved fittings, or flexible cord approved for extra-hard usage and provided with bushed fitting shall be used, except that where dusts are of an electrically conducting nature, flexible metal conduit shall not be used, and flexible cords shall be provided with dust-tight seals at both ends. An additional conductor for grounding shall be provided in the flexible cord unless other acceptable means of ground-

ing is provided. Where flexible connections are subject to oil or other corrosive conditions, the insulation of the conductors shall be of a type approved for the condition or shall be protected by means of a suitable sheath.

b. Class II, Division 2. In Class II, Division 2 locations, rigid metal conduit, electrical metallic tubing, Type MI cable with approved termination fittings, or approved Type MC or ALS cable with approved termination fittings for Class II locations shall be the wiring method employed.

(1) *Fittings and boxes.* Fittings and boxes in which taps, joints or terminal connections are made shall be designed to minimize the entrance of dust, and (a) shall be provided with telescoping or close-fitting covers, or other effective means to prevent the escape of sparks or burning material, and (b) shall have no openings (such as holes for attachment screws) through which, after installation, sparks or burning material might escape, or through which adjacent combustible material might be ignited.

(2) *Flexible connections.* Where flexible connections are necessary the provisions of 1.4(4)"a"(2) shall apply.

1.4(5) Sealing, Class II, Divisions 1 and 2. Where a raceway provides communication between an enclosure which is required to be dust-ignition-proof and one which is not, suitable means shall be provided to prevent the entrance of dust into the dust-ignition-proof enclosure through the raceway. This means may be (a) a permanent and effective seal, (b) a horizontal section not less than ten feet long in the raceway, or (c) a vertical section of raceway not less than five feet long and extending downward from the dust-ignition-proof enclosure. Sealing fittings shall be accessible.

1.4(6) Switches, circuit breakers, motor controllers, and fuses. Switches, circuit breakers, motor controllers and fuses shall conform to the following:

a. Class II, Division 1. In Class II, Division 1 locations, switches, circuit breakers, motor controllers and fuses shall conform to the following:

(1) *Type required.* Switches, circuit breakers, motor controllers, and fuses, including push buttons, relays and similar devices, which are intended to interrupt current in the normal performance of the function for which they are installed, or which are installed where dusts of an electrically conducting nature may be present, shall be provided with dust-ignition-proof enclosures which, together with the enclosed apparatus in each case, shall be approved as a complete assembly for Class II locations.

This includes service and branch circuit fuses, switches and circuit breakers, motor controllers (including push buttons, pilot switches, relays, and motor overload protective devices), and switches, fuses and circuit breakers for the control and protection of lighting and appliance circuits.

(2) *Isolating switches.* Disconnecting and isolating switches containing no fuses and not intended to interrupt current, and which are not installed where dusts may be of an electrically conducting nature, shall be provided with tight metal enclosures which shall be designed to minimize the entrance of dust, and which shall be equipped with telescoping or close-fitting covers, or with other effective means to prevent the escape of sparks or burning material, and have no openings (such as holes for attachment screws) through which, after installation, sparks or burning material might escape, or through which exterior accumulations of dust or adjacent combustible material might be ignited.

(3) *Metal dusts.* In locations where dust from magnesium, aluminum, aluminum bronze powders, or other metals of similarly hazardous characteristics may be present, fuses, switches, motor controllers and circuit breakers shall have enclosures specifically approved for such locations.

b. Class II, Division 2. In Class II, Division 2 locations, enclosures for fuses, switches, circuit breakers and motor controllers including push buttons, relays and similar devices, shall conform to the requirements of 1.4(6)“a”(2).

1.4(7) Control transformers and resistors. Transformers, solenoids, impedance coils and resistors used as or in conjunction with control equipment for motors, generators and appliances shall conform to the following:

a. Class II, Division 1. In Class II, Division 1 locations, control transformers, solenoids, impedance coils and resistors, and any overcurrent devices or switching mechanisms associated with them shall have dust-ignition-proof enclosures approved for Class II locations. No control transformer, impedance coil or resistor shall be installed in a location where dust from magnesium, aluminum, aluminum bronze powders, or other metals of similarly hazardous characteristics may be present unless provided with an enclosure specifically approved for such locations.

b. Class II, Division 2. In Class II, Division 2 locations, transformers and resistors shall conform to the following:

(1) *Switching mechanisms.* Switching mechanisms (including overcurrent devices) associated with control transformers, solenoids, impedance coils and resistors, shall be provided with enclosures conforming to 1.4(6)“a”(2).

(2) *Coils and windings.* Where not located in the same enclosure with switching mechanisms, control transformers, solenoids and impedance coils shall be provided with tight metal housings without ventilating openings.

(3) *Resistors.* Resistors and resistance devices shall have dust-ignition-proof enclosures approved for Class II locations, except that where the maximum normal operating temperature of the resistor will not exceed 120°C. (248°F.) nonadjustable resistors

and resistors which are part of an automatically timed starting sequence may have enclosures conforming to 1.4(7)“b”(2).

1.4(8) Motors and generators. Motors and generators shall conform to the following:

a. Class II, Division 1. In Class II, Division 1 locations, motors, generators, and other rotating electrical machinery shall be totally enclosed not ventilated, totally enclosed pipe-ventilated, or totally enclosed fan-cooled, and shall be approved as dust-ignition-proof for Class II locations. Motors, generators or other rotating electrical machinery shall not be installed in locations where dust from magnesium, aluminum, aluminum bronze powders, or other metals of similarly hazardous characteristics may be present unless such machines are totally enclosed, or totally enclosed fan-cooled, and specifically approved for such locations.

b. Class II, Division 2. In Class II, Division 2 locations, motors, generators and other rotating electrical machinery shall be totally enclosed not ventilated, totally enclosed pipe-ventilated, or totally enclosed fan-cooled, except that in locations where, in the judgment of the rule enforcing authority, only moderate accumulations of nonconducting, nonabrasive dust are likely to occur, and where the equipment is readily accessible for routine cleaning and maintenance self-cleaning textile motors of the squirrel-cage type, standard open type machines without sliding contacts, centrifugal or other types of switching mechanism (including motor overcurrent devices), or integral resistance devices, or standard open type machines having such contacts, switching mechanisms or resistance devices enclosed within tight metal housings without ventilating or other openings, may be installed. Motors, generators or other rotating electrical machinery of partially enclosed or splash proof type shall not be installed in such locations.

1.4(9) Ventilating piping. Vent pipes for motors, generators or other rotating electrical machinery, or for enclosures for electrical apparatus or equipment, shall be of metal not lighter than No. 24 USS gage, or of equally substantial noncombustible material, and shall lead directly to a source of clean air outside of buildings; be screened at the outer ends to prevent the entrance of small animals or birds; be protected against physical damage and against rusting or other corrosive influences. In addition, vent pipes shall conform to the following:

a. Class II, Division 1. In Class II, Division 1 locations, vent pipes, including their connections to motors or to the dust-ignition-proof enclosures for other equipment or apparatus, shall be dust-tight throughout their length. For metal pipes, seams and joints shall be (1) riveted (or bolted) and soldered, (2) welded, or (3) rendered dust-tight by some other equally effective means.

b. Class II, Division 2. In Class II, Division 2 locations, vent pipes and their connections shall be sufficiently tight to prevent

the entrance of appreciable quantities of dust into the ventilated equipment or enclosure, and to prevent the escape of sparks, flame or burning material which might ignite dust accumulations or combustible material in the vicinity. For metal pipes, lock seams and riveted or welded joints may be used, and tight-fitting slip joints may be used where some flexibility is necessary as at connections to motors.

1.4(10) Utilization equipment, fixed and portable. Utilization equipment, fixed and portable, shall conform to the following:

a. Class II, Division 1. In Class II, Division 1 locations, utilization equipment, including electrically heated and motor-driven equipment, shall be dust-ignition-proof approved for Class II locations. Where dust from magnesium, aluminum, aluminum bronze powders, or other metals of similarly hazardous characteristics may be present, such equipment shall be specifically approved for such locations.

b. Class II, Division 2. In Class II, Division 2 locations, utilization equipment, fixed and portable, shall conform to the following:

(1) *Heaters.* Electrically heated utilization equipment shall be dust-ignition-proof approved for Class II locations.

(2) *Motors.* Motors of motor-driven utilization equipment shall conform to 1.4(8)“b”.

(3) *Switches, circuit breakers and fuses.* Enclosures for switches, circuit breakers, and fuses shall conform to 1.4(6)“a” (2).

(4) *Transformers, impedance coils and resistors.* Transformers, solenoids, impedance coils and resistors shall conform to 1.4(7)“b”.

1.4(11) Lighting fixtures. Lamps shall be installed in fixtures which shall conform to the following:

a. Class II, Division 1. In Class II, Division 1 locations, lighting fixtures for fixed and portable lighting shall conform to the following:

(1) *Approved fixtures.* Each fixture shall be dust-ignition-proof and approved for Class II locations, and shall be clearly marked to indicate the maximum wattage of the lamp for which it is approved. In locations where dust from magnesium, aluminum, aluminum bronze powders, or other metals of similarly hazardous characteristics may be present, fixtures for fixed or portable lighting, and all auxiliary equipment, shall be specifically approved for such locations.

(2) *Physical damage.* Each fixture shall be protected against physical damage by a suitable guard or by location.

(3) *Pendant fixtures.* Pendant fixtures shall be suspended by threaded rigid conduit stems or chains with approved fittings, or by other approved means. For rigid stems longer than twelve inches permanent and effective bracing against lateral displacement shall be provided at a level not more than twelve inches above the lower end of the stem, or

flexibility in the form of a fitting or a flexible connector approved for the purpose and for the location shall be provided not more than twelve inches from the point of attachment to the supporting box or fitting. Threaded joints shall be provided with setscrews or other effective means to prevent loosening. Where wiring between an outlet box or fitting and a pendant fixture is not enclosed in conduit, flexible cord approved for hard usage shall be used, and suitable seals shall be provided where the cord enters the fixture and the outlet box or fitting. Flexible cord shall not serve as the supporting means for a fixture.

(4) *Supports.* Boxes, box assemblies, or fittings used for the support of lighting fixtures shall be approved for the purpose and for Class II locations.

b. Class II, Division 2. In Class II, Division 2 locations, lighting fixtures shall conform to the following:

(1) *Portable lamps.* Portable lamps shall be dust-ignition-proof and approved for Class II locations. They shall be clearly marked to indicate the maximum wattage of lamps for which they are approved.

(2) *Fixed lighting.* Lighting fixtures for fixed lighting, when not of a type approved for Class II locations, shall provide enclosures for lamps and lampholders which shall be designed to minimize the deposit of dust on lamps and to prevent the escape of sparks, burning material or hot metal. Each fixture shall be clearly marked to indicate the maximum wattage of lamp which may be used without exceeding a maximum exposed surface temperature of 165°C. (329°F.) under normal conditions of use.

(3) *Physical damage.* Lighting fixtures for fixed lighting shall be protected from physical damage by suitable guards or by location.

(4) *Pendant fixtures.* Pendant fixtures shall be suspended by threaded rigid conduit stems or chains with approved fittings, or by other approved means. For rigid stems longer than twelve inches permanent and effective bracing against lateral displacement shall be provided at a level not more than twelve inches above the lower end of the stem, or flexibility in the form of a fitting or a flexible connector approved for the purpose shall be provided not more than twelve inches from the point of attachment to the supporting box or fitting. When wiring between an outlet box or fitting and a pendant fixture is not enclosed in conduit, flexible cord approved for hard usage shall be used. Flexible cord shall not serve as the supporting means for a fixture.

(5) *Supports.* Boxes, box assemblies and fittings used for the support of lighting fixtures shall be approved for that purpose.

(6) *Electric discharge lamps.* Starting and control equipment for mercury vapor and fluorescent lamps shall conform to the requirement of 1.4(7)“b”.

1.4(12) Flexible cords, Class II, Divisions 1 and 2. Flexible cords used in Class II

locations shall (a) be of a type approved for extra hard usage, (b) contain, in addition to the conductors of the circuit, a grounding conductor conforming to 1.3(11), (c) be connected to terminals or to supply conductors in an approved manner, (d) be supported by clamps or by other suitable means in such a manner that there will be no tension on the terminal connections, and (e) be provided with suitable seals to prevent the entrance of dust where the flexible cord enters boxes or fittings which are required to be dust-ignition-proof.

1.4(13) Receptacles and attachment plugs.

a. Class II, Division 1. In Class II, Division 1 locations, receptacles and attachment plugs shall be of the type provided for connection to the grounding conductor of the flexible cord, and shall be dust-ignition-proof approved for Class II locations.

b. Class II, Division 2. In Class II, Division 2 locations, receptacles and attachment plugs shall be of the type providing for connection to the grounding conductor of the flexible cord and shall be so designed that connection to the supply circuit cannot be made or broken while live parts are exposed.

1.4(14) Signal, alarm, remote-control, and local loud-speaker intercommunication systems. Signal, alarm, remote-control and local loud-speaker intercommunication systems shall conform to the following:

a. Class II, Division 1. In Class II, Division 1 locations, signal, alarm, remote-control and local loud-speaker intercommunication systems shall conform to the following:

(1) *Wiring method.* Where accidental damage or breakdown of insulation might cause arcs, sparks or high temperatures, rigid metal conduit, electrical metallic tubing, or Type MI cable with approved termination fittings shall be the wiring method employed. For conduit or electrical metallic tubing, the number of conductors shall be limited only by the requirement that the cross-sectional area of all conductors shall not exceed forty percent of the area of the raceway. Where limited flexibility is desirable or where exposure to physical damage is not severe, flexible cord approved for extra hard usage may be used.

(2) *Contacts.* Switches, circuit breakers, relays, contactors and fuses which may interrupt other than voice currents, and current-breaking contacts for bells, horns, howlers, sirens and other devices in which sparks or arcs may be produced, shall be provided with enclosures approved for the location, unless current-breaking contacts are immersed in oil, or unless the interruption of current occurs within a chamber sealed against the entrance of dust, in which case enclosures may be of general purpose type.

(3) *Resistors and similar equipment.* Resistors, transformers and choke coils which may carry other than voice currents, and rectifiers, thermionic tubes, and other heat generating equipment or apparatus shall be

provided with dust-ignition-proof enclosures approved for Class II locations.

(4) *Rotating machinery.* Motors, generators and other rotating electrical machinery shall conform to 1.4(8)"a".

(5) *Electrical conducting dusts.* Where dusts are of an electrically conducting nature, all wiring and equipment shall be approved for Class II locations.

(6) *Metal dusts.* Where dust from magnesium, aluminum, aluminum bronze powders, or other metals of similarly hazardous characteristics may be present, all apparatus and equipment shall be specifically approved for such conditions.

b. Class II, Division 2. In Class II, Division 2 locations, signal, alarm, remote-control and local loud-speaker intercommunication systems shall conform to the following:

(1) *Contacts.* Enclosures shall conform to 1.4(14)"a"(2) or contacts shall have tight metal enclosures designed to minimize the entrance of dust, and shall have telescoping or tight-fitting covers and no openings through which, after installation, sparks or burning material might escape.

(2) *Transformers and similar equipment.* The windings and terminal connections of transformers and choke coils shall be provided with tight metal enclosures without ventilating openings.

(3) *Resistors and similar equipment.* Resistors, resistance devices, thermionic tubes, and rectifiers shall conform to 1.4(14)"a"(3) except that enclosures for thermionic tubes, nonadjustable resistors or rectifiers for which maximum operating temperature will not exceed 120°C. (248°F.) may be of general purpose type.

(4) *Rotating machinery.* Motors, generators and other rotating electrical machinery shall conform to 1.4(8)"b".

1.4(15) Live parts, Class II, Divisions 1 and 2. There shall be no exposed live parts.

1.4(16) Grounding, Class II, Divisions 1 and 2. Wiring and equipment shall be grounded in conformity with the following:

a. Exposed parts. See 1.3(16)"a".

b. Bonding. The locknut-bushing and double-locknut types of contact shall not be depended upon for bonding purposes, but bonding jumpers with proper fittings, or other approved means shall be used. Such means of bonding shall apply to all intervening raceways, fittings, boxes, and enclosures, between hazardous areas and the point of grounding for service equipment. Where flexible conduit is used as permitted in 1.4(4), bonding jumpers with proper fittings shall be provided around such conduit.

c. Lightning protection. Each ungrounded service conductor of a wiring system in a Class II location, when supplied from an ungrounded overhead electrical supply system in an area where lightning disturbances are prevalent, shall be protected by a lightning protective device of proper type. Lightning protective devices shall be connected to the serv-

ice conductors on the supply side of the service disconnecting means, and shall be bonded to the raceway system at the service entrance.

d. Grounded service conductor bonded to raceway. Wiring in a Class II location, when supplied from a grounded alternating-current supply system in which a grounded conductor is a part of the service, shall have the grounded service conductor bonded to the raceway system and to the grounding conductor for the raceway system. The bonding connection to the grounded service conductor shall be made on the supply side of the service disconnecting means.

e. Transformer ground bonded to raceway. Wiring in a Class II location, where supplied from a grounded alternating-current supply system in which no grounded conductor is a part of the service, shall be provided with a metallic connection between the supply system ground and the raceway system at the service entrance. The metallic connection shall have an ampacity not less than $\frac{1}{2}$ that of the service conductors, and shall in no case be smaller than No. 10 when of soft copper, or No. 12 when of medium or hard-drawn copper.

f. Multiple grounds. Where it is necessary to abandon one or more grounding connections to avoid objectionable passage of current over the grounding conductors, the connection required in 1.4(16)"d" or "e" shall not be abandoned while any other grounding connection remains connected to the supply system.

1.5(88A)T.III Class III installations.

1.5(1) General. This rule shall apply to the installation of electrical wiring and apparatus in locations classified as Class III under section 1.2(5) except as modified by this section.

Equipment installed in Class III locations shall be able to function at full rating without developing surface temperatures high enough to cause excessive dehydration or gradual carbonization of accumulated fibers or flyings. Organic material which is carbonized or is excessively dry is highly susceptible to spontaneous ignition. In general, maximum surface temperatures under operating conditions shall not exceed 165°C. (329°F.) for equipment which is not subject to overloading, and 120°C. (248°F.) for equipment such as motors, and power transformers, which may be overloaded.

1.5(2) Transformers and capacitors, Class III, Divisions 1 and 2. Transformers and capacitors shall conform to 1.4(2)"b".

1.5(3) Wiring methods. Wiring methods shall conform to the following:

a. Class III, Division 1. In Class III, Division 1 locations, rigid metal conduit or Type MI cable shall be the wiring method employed.

(1) *Boxes and fittings.* Fittings and boxes in which taps, joints or terminal connections are made shall be provided with telescoping or close fitting covers, or other effective means to prevent the escape of sparks or

burning material, and shall have no openings (such as holes for attachment screws) through which, after installation, sparks or burning material might escape, or through which adjacent combustible material might be ignited.

(2) *Flexible connections.* Where flexible connections are necessary the provisions of 1.4(4)"a"(2) shall apply.

b. Class III, Division 2. In Class III, Division 2 locations, the wiring method shall conform to 1.5(3)"a", except that in sections, compartments or areas used solely for storage and containing no machinery, open wiring on insulators may be employed when installed to conform to the following:

Definition. Open wiring is a wiring method using cleats, knobs, tubes and flexible tubing for the protection and support of insulated conductors run in or on buildings, and not concealed by the building structure.

Use. Open wiring on insulators may be used for exposed work, either inside or outside building; in dry or wet locations; where subject to corrosive vapors such as covered by 1.7(7)"a" through "g"; for services provided the requirements of this section are satisfied.

Open wiring on insulators shall not be used (1) in commercial garages, (2) in theaters, (3) in motion-picture studios, (4) in hoistways, and (5) in hazardous locations, except in storage compartments of Class III locations as provided in 1.5(3)"b".

Conductors. Only single conductors shall be used.

The allowable ampacities of insulated conductors (per manufacturer's specifications) shall apply to open wiring on insulators.

Supports. Conductors shall not be in contact with any object other than their insulating supports. They shall be rigidly supported on noncombustible, nonabsorptive insulating material as follows:

(1) Under ordinary circumstances, supports for wiring over flat surfaces shall be not more than 4½ feet apart. Where the conductors are likely to be disturbed, the distance between supports shall be shortened sufficiently to provide adequate support for conductors;

(2) Conductors shall be supported within six inches of a tap;

(3) Conductors shall not be dead ended at a rosette, lampholder, or receptacle unless the last support is within twelve inches of the device.

The following exceptions to the provisions of 1.5(3)"b", Supports, may be permitted:

Exception No. 1. For use of nonmetallic flexible tubing, see 1.5(3)"b", Flexible Nonmetallic Tubing.

Exception No. 2. Conductors of No. 8 or larger installed in the open across open spaces where not likely to be disturbed, may be supported at distances not greater than fifteen feet provided that approved noncombustible, nonabsorptive insulating separators assuring not less than 2½-inch separation between conductors, are installed at intervals of not over 4½ feet.

Exception No. 3. In buildings of mill construction where not likely to be disturbed, feeders in the open, not smaller than No. 8, may be separated about six inches and installed direct from timber to timber, being supported from each timber only.

When nails are used to mount knobs, they shall be not smaller than tenpenny. When screws are used to mount knobs, or when nails or screws are used to mount cleats, they shall be of a length sufficient to penetrate the wood to a depth equal to at least one-half the height of the knob and fully the thickness of the cleat. Cushion washers shall be used with nails.

Conductor separation. Open conductors shall be separated as follows:

For voltage not exceeding 300 volts between conductors, 2½ inches from each other and shall be separated from the surface wired over at least ½ inch in dry locations.

For voltages of 301 to 600 volts between conductors, four inches from each other and shall be separated from surface wired over at least one inch.

In damp or wet locations, a separation of at least one inch from the surface wired over shall be maintained for all voltages.

Flexible nonmetallic tubing. In dry locations, when not exposed to severe physical damage, conductors may be separately encased in flexible tubing. Tubing shall be in continuous length not exceeding fifteen feet, and secured to the surface wired over by straps spaced not exceeding 4½ feet apart.

Tie wires. No. 8 or larger conductors supported on solid knobs shall be securely tied thereto. Tie wires shall have a covering equivalent to conductors which they confine.

Passing through walls and floors. Open conductors shall be separated from contact with walls, floors, timbers or partitions through which they pass by tubes or bushings of non-combustible, nonabsorptive insulating material. Where the bushing is shorter than the hole, a waterproof sleeve of noninductive material shall be inserted in the hole and an insulating bushing slipped into the sleeve at either end in such a manner as to keep the conductors absolutely out of contact with the sleeve. Each conductor must be carried through a separate tube or sleeve.

Separation from metal work. Open conductors shall be separated at least two inches from metallic conduit, piping, or other conducting material and from any exposed lighting, power or signal conductor, or shall be separated therefrom by a continuous and firmly fixed nonconductor additional to the insulation of the conductor. Where any insulating tube is used, it shall be secured at the ends. Deviation from this requirement may, when necessary, be allowed by the authority enforcing these rules.

Separation from piping in damp locations. Open conductors located close to water pipes or tanks, or in other damp locations, shall be so placed that an air space will be permanent-

ly maintained between them and pipes, which they cross. Where practicable, conductors shall be installed over, rather than under, pipes upon which moisture is likely to gather or which may leak.

Protection from physical damage. Where open conductors cross ceiling joists and wall studs, and are exposed to physical damage, they shall be protected by one of the following methods. Conductors within seven feet from the floor shall be considered exposed to physical damage.

By guard strips not less than ¾ inch in thickness and at least as high as the insulating supports, placed on each side of and close to the wiring.

By a substantial running board at least ½ inch thick back of the conductors with side protections. Running boards shall extend at least one inch outside the conductors, but not more than two inches and the protecting sides shall be at least two inches high and at least ¾ inch thick.

By boxing made as above and furnished with cover kept at least one inch away from the conductors within. Where protecting vertical conductors on side walls the boxing shall be closed at the top and the holes through which the conductors pass shall be bushed.

By rigid metal conduit, electrical metallic tubing, or by metal piping, in which case the conductors shall be encased in continuous lengths of approved flexible tubing. The conductors passing through metal enclosures shall be so grouped that current in both directions is approximately equal.

In accessible attics. Conductors in unfinished attics or roof spaces shall be installed in accordance with the following:

Conductors in unfinished attics and roof spaces shall be run through or on the sides of joists, studs and rafters, except in attics and roof spaces having head room at all points of less than three feet in buildings completed before the wiring is installed.

Where conductors in accessible unfinished attics or roof spaces reached by stairway or permanent ladder are run through bored holes in floor joists or through bored holes in studs or rafters within seven feet of the floor or floor joists, such conductors shall be protected by substantial running boards extending at least one inch on each side of the conductors and securely fastened in place.

Where carried along the sides of rafters, studs or floor joists, neither running boards nor guard strips will be required.

Entering spaces subject to dampness, wetness or corrosive vapors. Conductors entering or leaving locations subject to dampness, wetness or corrosive vapors shall have drip loops formed on them and shall then pass upward and inward from the outside of buildings, or from the damp, wet or corrosive location, through noncombustible, nonabsorptive insulating tubes.

Switches. Surface-type snap switches shall be mounted in accordance with the following:

Snap switches used with open wiring on insulators shall be mounted on subbases of insulating material which will separate the conductors at least $\frac{1}{2}$ inch from the surface wired over. Metal boxes are not required.

Other types of switches shall be installed in accordance with the following:

Switches and circuit breakers shall be of the externally operable type enclosed in metal boxes or cabinets, except pendant and surface-type snap switches and knife switches mounted on an open-face switchboard or panelboard, but only on condition that protection as required by 1.5(3)"b", Protection from Physical Damage, be provided where conductors are not run in roof spaces, and well out of reach of sources of physical damage.

1.5(4) Switches, circuit breakers, motor controllers and fuses, Class III, Divisions 1 and 2. Switches, circuit breakers, motor controllers and fuses, including push buttons, relays and similar devices, shall be provided with tight metal enclosures designed to minimize entrance of fibers and flyings, and which shall (a) be equipped with telescoping or close fitting covers, or with other effective means to prevent escape of sparks or burning material, and (b) have no openings (such as holes for attachment screws) through which, after installation, sparks or burning material might escape, or through which exterior accumulations of fibers or flyings or adjacent combustible material might be ignited.

1.5(5) Control transformers and resistors, Class III, Divisions 1 and 2. Transformers, impedance coils and resistors used as or in conjunction with control equipment for motors, generators and appliances, shall conform to 1.4(7)"b", with the exception that, in Class III, Division 1 locations, when these devices are in the same enclosure with switching devices of such control equipment, and are used only for starting or short-time duty, the enclosure shall conform to the requirements of 1.5(4).

1.5(6) Motors and generators. Motors and generators shall conform to the following:

a. Class III, Division 1. In Class III, Division 1 locations, motors, generators, and other rotating electrical machinery shall be totally enclosed not ventilated, totally enclosed pipe-ventilated, or totally enclosed fan-cooled, except that in locations where, in the judgment of the rule enforcing authority, only moderate accumulations of lint and flyings will be likely to collect on, in or in the vicinity of a rotating electrical machine, and where such machine is readily accessible for routine cleaning and maintenance, self-cleaning textile motors of the squirrel-cage type, standard open type machines without sliding contacts, centrifugal or other types of switching mechanism (including motor overload devices), or standard open type machines having such contacts, switching mechanisms or resistance devices enclosed within tight metal housings without ventilating or other openings, may be installed.

b. Class III, Division 2. In Class III, Division 2 locations, motors, generators, and other rotating electrical machinery shall be totally enclosed not ventilated, totally enclosed pipe-ventilated, or totally enclosed fan-cooled.

c. Partially enclosed type, Class III, Divisions 1 and 2. Motors, generators or other rotating electrical machinery of the partially enclosed or splash-proof type shall not be installed in Class III locations.

1.5(7) Ventilating piping, Class III, Divisions 1 and 2. Vent pipes for motors, generators or other rotating electrical machinery, or for enclosures for electrical apparatus or equipment, shall be of metal not lighter than No. 24 USS gage, or of equally substantial noncombustible material, and shall (a) lead directly to a source of clean air outside of buildings, (b) be screened at the outer ends to prevent the entrance of small animals or birds, (c) be protected against physical damage and against rusting or other corrosive influences, and (d) vent pipes and their connections shall be sufficiently tight to prevent the entrance of appreciable quantities of fibers or flyings into the ventilated equipment or enclosure, and to prevent the escape of sparks, flame or burning material which might ignite accumulations of fibers or flyings or combustible material in the vicinity. For metal pipes, lock seams and riveted or welded joints may be used, and tight-fitting slip joints may be used where some flexibility is necessary as at connections to motors.

1.5(8) Utilization equipment, fixed and portable, Class III, Divisions 1 and 2. Utilization equipment shall conform to the following:

a. Heaters. Electrically heated utilization equipment shall be approved for Class III locations.

b. Motors. Motors of motor-driven utilization equipment shall conform to 1.5(6) "b". Utilization equipment which may be readily moved from one location to another should conform to requirements for the most hazardous location.

c. Switches, circuit breakers, motor controllers and fuses. Switches, circuit breakers, motor controllers and fuses shall conform to 1.5(4).

1.5(9) Lighting fixtures, Class III, Divisions 1 and 2. Lamps shall be installed in fixtures which shall conform to the following:

a. Fixed lighting. Lighting fixtures for fixed lighting shall provide enclosures for lamps and lampholders which shall be designed to minimize entrance of fibers and flyings, and to prevent the escape of sparks, burning material or hot metal. Each fixture shall be clearly marked to show wattage of lamp which may be used without exceeding a maximum exposed surface temperature of 165°C. (329°F.) under operating conditions of use.

b. Physical damage. A fixture which may be exposed to physical damage shall be protected by a suitable guard.

c. Pendant fixtures. Pendant fixtures shall be suspended by stems of threaded rigid conduit or threaded metal tubing of equivalent thickness. For stems longer than twelve inches, permanent and effective bracing against lateral displacement shall be provided at a level not more than twelve inches above the lower end of the stem, or flexibility in the form of a fitting or a flexible connector approved for the purpose shall be provided not more than twelve inches from the point of attachment to the supporting box or fitting.

d. Supports. Boxes, box assemblies or fittings used for the support of lighting fixtures shall be of a type approved for the purpose.

e. Portable lamps. Portable lamps shall be equipped with handles and protected with substantial guards, and lampholders shall be of unswitched type with no exposed metal parts and without provision for receiving attachment plugs. In all other respects, portable lamps shall conform to 1.5(9)"a".

1.5(10) Flexible cords, Class III, Divisions 1 and 2. Flexible cords shall conform to 1.4(12).

1.5(11) Receptacles and attachment plugs, Class III, Divisions 1 and 2. Receptacles and attachment plugs shall conform to 1.4(13)"b".

1.5(12) Signal, alarm, remote-control and local loud-speaker intercommunication systems, Class III, Divisions 1 and 2. Signal, alarm, remote-control and local loudspeaker intercommunication systems shall conform to 1.4(14)"a".

1.5(13) Electric cranes and hoists, and similar equipment, Class III, Divisions 1 and 2. Where installed for operation over combustible fibers or accumulations of flyings, traveling cranes and hoists for material handling, traveling cleaners for textile machinery, and similar equipment shall conform to the following:

a. Power supply to contact conductors shall be isolated from all other systems and shall be ungrounded, and shall be equipped with an acceptable recording ground detector which will give an alarm and will automatically de-energize the contact conductors in case of a fault to ground, or with an acceptable ground fault indicator which will give a visual and audible alarm and maintain the alarm as long as power is supplied to the system and the ground fault remains.

b. Contact conductors shall be so located or guarded as to be inaccessible to other than authorized persons, and shall be protected against accidental contact with foreign objects.

c. Current collectors shall be arranged or guarded to confine normal sparking and to prevent escape of sparks or hot particles. To reduce sparking, two or more separate sur-

faces of contact shall be provided for each contact conductor. Reliable means shall be provided to keep contact conductors and current collectors free of accumulations of lint or flyings.

d. Control equipment shall conform to 1.5(4) and 1.5(5).

It is recommended that where the distance of travel permits, current to the crane be supplied through flexible cord approved for extra hard usage and equipped with approved type of reel or take-up device.

1.5(14) Electric trucks. Electric trucks shall be used, maintained and operated according to the manufacturer's instructions.

1.5(15) Storage battery charging equipment, Class III, Divisions 1 and 2. Storage battery charging equipment shall be located in separate rooms built or lined with substantial noncombustible materials so constructed as to adequately exclude flyings or lint, and shall be well ventilated.

1.5(16) Live parts, Class III, Divisions 1 and 2. There shall be no exposed live parts except as provided in 1.5(13).

1.5(17) Grounding, Class III, Divisions 1 and 2. Wiring and equipment shall be grounded in conformity with 1.4(16).

1.6(88A) T.III Hazardous locations—specific.

1.6(1) Scope. The provisions of 1.7(88A) to 1.12(88A) T.III, inclusive, shall apply to occupancies or parts of occupancies which are or may be hazardous because of atmospheric concentrations of hazardous gases or vapors, or because of deposits or accumulations of materials which may be readily ignitable. It is the intent to assist rule enforcing authorities in the classification of areas with respect to hazardous conditions which may or may not require construction and equipment conforming to 1.3(88A) T.III through 1.5(88A) T.III of this chapter, and to set forth such additional special requirements as are applicable to the specific occupancy.

1.6(2) General. These rules shall apply to the installation of electrical wiring and equipment in occupancies within the scope of 1.7(88A) to 1.12(88A) T.III, inclusive, except as such rules are modified in those sections. Where unusual conditions exist in a specific occupancy, the authority enforcing these rules shall judge with respect to the application of specific rules.

1.7(88A) T.III Commercial garages, repair and storage.

1.7(1) Scope. These occupancies shall include locations used for service and repair operations in connection with self-propelled vehicles (including passenger automobiles, buses, trucks, and tractors) in which volatile flammable liquids or flammable gases are used for fuel or power, and locations in which more than three such vehicles are or may be stored at one time.

1.7(2) Hazardous areas. Classification under 1.2(88A)T.III.

a. For each floor at or above grade, the entire area up to a level eighteen inches above the floor shall be considered to be a Class I, Division 2 location.

b. For each floor below grade, the entire area up to a level eighteen inches above the bottom of outside doors or other openings which are at or above grade level shall be considered to be Class I, Division 2 location. Where adequate positive pressure ventilation is provided, the authority enforcing these rules may judge that the hazardous location extends up to a level of only eighteen inches above each such floor.

c. Any pit or depression below floor level shall be considered to be a Class I, Division 2 location which shall extend up to said floor level, except that any unventilated pit or depression may be judged by the authority enforcing these rules to be a Class I, Division 1 location.

d. Adjacent areas in which hazardous vapors are not likely to be released such as stock rooms, switchboard rooms and other similar locations, having floors elevated at least eighteen inches above adjacent garage floor, or separated therefrom by tight curbs or partitions at least eighteen inches high, shall not be classed as hazardous.

1.7(3) Wiring and equipment in hazardous areas. Within hazardous areas as defined in 1.7(2), wiring and equipment shall conform to applicable provisions of 1.3(88A)T.III, this chapter.

1.7(4) Sealing. Approved seals conforming to the requirements of 1.3(5) shall be provided, and 1.3(5) Class I, Division 2 "b", shall apply to horizontal as well as to vertical boundaries of the defined hazardous areas. Raceways embedded in a masonry floor or buried beneath a floor shall be considered to be within the hazardous area above the floor if any connections or extensions lead into or through such area.

1.7(5) Wiring in spaces above hazardous areas.

a. All fixed wiring shall be in metallic raceways or shall be Type MI or Type ALS cable. Cellular metal floor raceways may be used only for supplying ceiling outlets or extensions to the area below the floor, but such raceways shall have no connections leading into or through any hazardous area above the floor. No electrical conductor shall be installed in any cell, header or duct which contains a pipe for steam, water, air, gas, drainage, or other service except electrical.

b. For pendants, flexible cord suitable for the type of service and approved for hard usage shall be used.

c. For connection of portable lamps, motors or other utilization equipment, flexible cord suitable for the type of service and approved for extra hard usage shall be used.

d. When a circuit which supplies port-

ables or pendants includes an identified grounded conductor, receptacles, attachment plugs, connectors, and similar devices shall be of polarized type, and the identified conductor of the flexible cord shall be connected to the screw shell of any lampholder or to the identified terminal of any utilization equipment supplied.

e. When a pendant is used to supply a portable lamp or utilization equipment, the female portion of a polarized pin-plug connector or equivalent shall be attached to the lower end of the pendant, and the male portion shall be attached to the cord for the portable. The connector shall be designed to break apart readily in any position, and shall be suspended at a level not less than that specified in 1.7(2). Attachment plug receptacles in fixed position shall be located above the level specified in 1.7(2).

1.7(6) Equipment above hazardous areas.

a. Equipment which is less than twelve feet above floor level, and which may produce arcs, sparks or particles of hot metal, such as cutouts, switches, receptacles, charging panels, generators, motors, or other equipment (excluding lamps and lampholders) having make-and-break or sliding contacts, shall be of totally enclosed type or shall be provided with suitable guards or screens to prevent escape of sparks or hot metal particles.

b. Lamps and lampholders for fixed lighting which are located over lanes through which vehicles are commonly driven or which may otherwise be exposed to physical damage, shall be located not less than twelve feet above floor level unless of totally enclosed type or provided with suitable guards, screens or covers to prevent escape of sparks or hot metal particles.

c. Portable lamps shall be equipped with handle, lampholder hook and substantial guard attached to the lampholder or handle. All exterior surfaces which might come in contact with battery terminals, wiring terminals, or other objects shall be of nonconducting material or shall be effectively protected with insulation. Lampholders shall be of unswitched type, and shall not provide means for plug-in of attachment plugs. Outer shell shall be of moulded composition or other material approved for the purpose, and metal-shell, lined lampholders, either of switched or unswitched type, shall not be used. Unless the lamp and its cord are supported or arranged in such a manner that they cannot be used in the hazardous areas classified in 1.7(2), they shall be of a type approved for such hazardous locations.

1.7(7) Battery-charging equipment. Battery chargers and their control equipment, and batteries being charged shall not be located within hazardous areas classified in 1.7(2). Tables, racks, trays, and wiring shall, in addition, conform to the following:

a. *Scope.* The provisions of this rule shall apply to all stationary installations of storage batteries using acid or alkali as the electrolyte and consisting of a number of cells

connected in series with a nominal voltage in excess of sixteen volts.

b. Definition of nominal battery voltage. The nominal battery voltage shall be calculated on the basis of 2.0 volts per cell for the lead-acid type, and 1.2 volts per cell for the alkali type.

c. Wiring and apparatus supplied from batteries. Wiring, appliances, and apparatus supplied from storage batteries shall be subject to the requirements of these rules applying to wiring, appliances, and apparatus operating at the same voltage.

d. Insulation of batteries of not over 250 volts. The provisions of this section shall apply to storage batteries having the cells so connected as to operate at a nominal battery voltage not exceeding 250 volts.

(1) *Lead-acid batteries.* Cells in lead-lined wood tanks, where the number of cells in series does not exceed twenty-five, shall be supported individually on glass or glazed porcelain insulators. Where the number of the cells in series exceeds twenty-five, the cells shall be supported individually on oil insulators.

(2) *Alkali-type batteries.* Cells of the alkali type in jars made of conducting material shall be installed in trays of nonconducting material, with not over twenty cells in a series circuit in any one such tray, or the cells may be supported singly or in groups on porcelain or other suitable insulators.

(3) *Unsealed jars.* Cells in unsealed jars made of nonconductive material shall be assembled in trays of glass or supported on glass or glazed porcelain insulators; or, where installed on a rack, shall be supported singly or in groups on glass or other suitable insulators.

(4) *Sealed rubber jars.* Cells in sealed rubber or composition containers shall require no additional insulating support where the total nominal voltage of all cells in series does not exceed 150 volts. Where the total voltage exceeds 150 volts, batteries shall be sectionalized into groups of 150 volts or less and each group shall have the individual cells installed in trays or on racks. Where trays or racks are required for this type of cell, such trays or racks shall be supported on glass or glazed porcelain insulators or oil-type insulators.

(5) *Sealed glass or plastic jars.* Cells in sealed glass jars or in sealed jars of approved heat-resistant plastic, with or without wood trays, require no additional insulation.

e. Insulation of batteries of over 250 volts. The provisions of 1.7(7)“d” shall apply to storage batteries having the cells so connected as to operate at a nominal voltage exceeding 250 volts and, in addition, the provisions of this section shall also apply to such batteries. Cells shall be installed in groups having a total nominal voltage of not over 250 volts, in trays or on racks supported on oil insulators.

Exception No. 1. Where each individual cell, or subgroup in the tray or rack, is sup-

ported on oil insulators, no additional insulation for the group need be provided.

Exception No. 2. Cells of not over ten ampere-hour capacity in sealed glass jars may be grouped in trays, the total nominal voltage of all cells in such group not to exceed 250 volts, and each such tray to be supported on glass or glazed porcelain insulators, the trays being mounted on racks supported on oil insulators with a total nominal voltage of not over 500 volts for all cells in series on each such insulated rack.

Maximum protection is secured by sectionalizing high-voltage batteries into cell groups insulated from each other.

f. Racks and trays. Racks and trays shall conform to the following:

(1) *Racks.* Racks, as required in this rule, refer to frames designed to support cells or trays. They shall be substantial, and made of:

Wood, so treated as to be resistant to deteriorating action by the electrolyte; or

Metal, so treated as to be resistant to deteriorating action by the electrolyte, and provided with nonconducting members directly supporting the cells or with suitable insulating material on conducting members; or

Other similar suitable construction.

(2) *Trays.* Trays refer to frames such as crates or shallow boxes usually of wood or other nonconducting material, so constructed or treated as to be resistant to deteriorating action by the electrolyte.

g. Battery rooms. Battery rooms shall conform to the following:

(1) *Use.* Separate battery rooms or enclosures shall be required only for batteries in unsealed jars and tanks where the aggregate capacity at the eight-hour discharge rate exceeds five kilowatt hours.

(2) *Ventilation.* Provision shall be made for sufficient diffusion and ventilation of the gases from the battery to prevent the accumulation of an explosive mixture in the battery room.

(3) *Wiring method.* In storage battery rooms, bare conductors, open wiring, Type MI cable, Type ALS cable, or conductors in rigid conduit or electrical metallic tubing shall be used as the wiring method. Rigid metal conduit, or electrical metallic tubing, where used, shall be of corrosion-resistant material or shall be suitably protected from corrosion.

(4) *Varnished-cambric conductors.* Varnished-cambric-covered conductors, Type V, shall not be used.

(5) *Bare conductors.* Bare conductors shall not be taped.

(6) *Terminals.* Where metal raceway or other metallic covering is used in the battery room, at least twelve inches of the conductor at the end connected to a cell terminal shall be free from the raceway or metallic covering and shall be bushed by a substantial glazed insulating bushing. The end of the raceway shall be sealed tightly to resist the entrance of electrolyte by spray or by creepage. Sealing compound, rubber insulating tape or

other suitable material shall be used for this purpose.

1.7(8) Electric vehicle charging.

a. Flexible cords used for charging shall be suitable for the type of service and approved for extra hard usage. Their ampacity shall be adequate for the charging current.

b. Connectors shall have a rating not less than the ampacity of the cord, and in no case less than fifty amperes.

c. Connectors shall be so designed and installed that they will break apart readily at any position of the charging cable, and live parts shall be guarded from accidental contact. No connector shall be located within a hazardous area defined in 1.7(2).

d. Where plugs are provided for direct connection to vehicles, the point of connection shall not be within a hazardous area as defined in 1.7(2), and where the cord is suspended from overhead, it shall be so arranged that the lowest point of sag is at least six inches above the floor. Where the vehicle is equipped with an approved plug which will readily pull apart, and where an automatic arrangement is provided to pull both cord and plug beyond the range of physical damage, no additional connector is required in the cable or at the outlet.

1.8(88A)T.III Hazardous locations — aircraft hangars.

1.8(1) Definition. This occupancy shall include locations used for storage or servicing of aircraft in which gasoline, jet fuels, or other volatile flammable liquids, or flammable gases, are used, but shall not include such locations when used exclusively for aircraft which have never contained such liquids or gases, or which have been drained and properly purged.

1.8(2) Hazardous areas. Classification under 1.2(88A)T.III.

a. Any pit or depression below the level of the hangar floor shall be considered to be a Class I, Division 1 location which shall extend up to said floor level.

b. The entire area of the hangar including any adjacent and communicating areas not suitably cut off from the hangar shall be considered to be a Class I, Division 2 location up to a level eighteen inches above the floor.

c. The area within five feet horizontally from aircraft power plants, aircraft fuel tanks or aircraft structures containing fuel shall be considered to be a Class I, Division 2 hazardous location which shall extend upward from the floor to a level five feet above the upper surface of wings and of engine enclosures.

d. Adjacent areas in which hazardous vapors are not likely to be released such as stock rooms, electrical control rooms, and other similar locations, should not be classed as hazardous when adequately ventilated and when effectively cut off from the hangar itself by walls or partitions.

1.8(3) Wiring and equipment in hazardous areas. All fixed and portable wiring and

equipment which is or may be installed or operated within any of the hazardous locations defined in 1.8(2) shall conform to applicable provisions of 1.3(88A)T.III. All wiring installed in or under the hangar floor shall conform to the requirements for Class I, Division 1. When such wiring is located in vaults, pits, or ducts, adequate drainage shall be provided, and the wiring shall not be placed within the same compartment with any other service except piped compressed air.

1.8(4) Wiring not within hazardous areas.

a. All fixed wiring in a hangar, but not within a hazardous area as defined in 1.8(2), shall be installed in metallic raceways or shall be Type MI or Type ALS cable, except that wiring in nonhazardous locations as defined in 1.8(2)“d” may be of general purpose type.

b. For pendants, flexible cord suitable for the type of service and approved for hard usage shall be used. Each such cord shall include a separate grounding conductor.

c. For portable utilization equipment and lamps, flexible cord suitable for the type of service and approved for extra hard usage shall be used. Each such cord shall include a separate grounding conductor.

d. Where a circuit which supplies portables or pendants includes an identified grounded conductor, receptacles, attachment plugs, connectors, and similar devices shall be of polarized type, and the identified conductor of the flexible cord shall be connected to the screw shell of any lampholder or to the identified terminal of any utilization equipment supplied. Acceptable means shall be provided for maintaining continuity of the grounding conductor between the fixed raceway system and the noncurrent-carrying metallic portions of pendant fixtures, portable lamps, and portable utilization equipment.

1.8(5) Equipment not within hazardous areas.

a. In locations other than those described in 1.8(2), equipment which is less than ten feet above wings and engine enclosures of aircraft and which may produce arcs, sparks or particles of hot metal, such as lamps and lampholders for fixed lighting, cutouts, switches, receptacles, charging panels, generators, motors, or other equipment having make-and-break or sliding contacts, shall be of totally enclosed type or shall be provided with suitable guards or screens to prevent escape of sparks or hot metal particles, except that equipment in areas described in 1.8(2)“d”, may be of general purpose type.

b. Lampholders of metal shell, fiber-lined types shall not be used for fixed incandescent lighting.

c. Portable lamps which are or may be used within a hangar shall be approved for Class I locations.

d. Portable utilization equipment which is or may be used within a hangar shall be of a type suitable for use in Class I, Division 2 locations.

1.8(6) Stanchions, rostrums, and docks.

a. Electric wiring, outlets and equipment (including lamps) on or attached to stanchions, rostrums or docks which are located or likely to be located in a hazardous area as defined in 1.8(2)"c" shall conform to the requirements for Class I, Division 2 locations.

b. Where stanchions, rostrums, or docks are not located or likely to be located in a hazardous area as defined in 1.8(2)"c", wiring and equipment shall conform to 1.8(4) and 1.8(5), except that such wiring and equipment not more than eighteen inches above the floor in any position shall conform to 1.8(6)"a". Receptacles and attachment plugs shall be of locking type which will not break apart readily.

c. Mobile stanchions with electrical equipment conforming to 1.8(6) shall carry at least one permanently affixed warning sign to read: "WARNING—KEEP 5 FEET CLEAR OF AIRCRAFT ENGINES AND FUEL TANK AREAS."

1.8(7) Sealing. Approved seals shall be provided in conformance with Class I, Division 1, 1.3(5)"c", and Class I, Division 2, 1.3(5)"b", and shall apply to horizontal as well as to vertical boundaries of the defined hazardous areas. Raceways embedded in a masonry floor or buried beneath a floor shall be considered to be within the hazardous area above the floor when any connections or extensions lead into or through such area.

1.8(8) Aircraft electrical systems. Aircraft electrical systems should be de-energized when the aircraft is stored in a hangar, and, whenever possible, while the aircraft is undergoing maintenance.

1.8(9) Aircraft battery — charging and equipment.

a. Aircraft batteries should not be charged when installed in an aircraft located inside or partially inside a hangar.

b. Battery chargers and their control equipment shall not be located or operated within any of the hazardous areas defined in 1.8(2), and should preferably be located in a separate building or in an area such as described in 1.8(2)"d". Mobile chargers shall carry at least one permanently affixed warning sign to read: "WARNING—KEEP 5 FEET CLEAR OF AIRCRAFT ENGINES AND FUEL TANK AREAS." Tables, racks, trays, and wiring shall not be located within a hazardous area, and shall, in addition, conform to the provisions of 1.7(7).

1.8(10) External power sources for energizing aircraft.

a. Aircraft energizers shall be so designed and mounted that all electrical equipment and fixed wiring will be at least eighteen inches above floor level and shall not be operated in a hazardous area as defined in 1.8(2)"c".

b. Mobile energizers shall carry at least one permanently affixed warning sign to read:

"WARNING—KEEP 5 FEET CLEAR OF AIRCRAFT ENGINES AND FUEL TANK AREAS"

c. Aircraft energizers shall be equipped with polarized external power plugs and shall have automatic controls to isolate the ground power unit electrically from the aircraft in case excessive voltage is generated by the grounding power unit.

d. Flexible cords for aircraft energizers and ground support equipment shall be approved for the type of service and extra hard usage and shall include a ground conductor.

1.8(11) Mobile servicing equipment with electrical components.

a. Mobile servicing equipment (such as vacuum cleaners, air compressors, and air movers) having electrical wiring and equipment not suitable for Class I, Division 2 locations shall be so designed and mounted that all such fixed wiring and equipment will be at least eighteen inches above the floor. Such mobile equipment shall not be operated within the hazardous areas defined in 1.8 (2)"c" and shall carry at least one permanently affixed warning sign to read: "WARNING—KEEP 5 FEET CLEAR OF AIRCRAFT ENGINES AND FUEL TANK AREAS."

b. Flexible cords for mobile equipment shall be suitable for the type of service and approved for extra hard usage, and shall include a grounding conductor. Attachment plugs and receptacles shall be approved for the location in which they are installed, and shall provide for connection of the grounding conductor to the raceway system.

c. Equipment not of a type suitable for Class I, Division 2 locations should not be operated in areas where maintenance operations likely to release hazardous vapors are in progress.

1.8(12) Grounding. All metallic raceways, and all noncurrent-carrying metallic portions of fixed or portable equipment, regardless of voltage, shall be grounded as provided in 1.3(16)"a".

1.9(88A)T.III Gasoline dispensing and service stations.

1.9(1) Definitions. This classification shall include locations where gasoline or other volatile flammable liquids or liquefied flammable gases are transferred to the fuel tanks (including auxiliary fuel tanks) of self-propelled vehicles.

Other areas used as lubrication, service rooms and repair rooms, and offices, salesrooms, compressor rooms and similar locations shall conform to 1.6(88A)T.III and 1.7(88A)T.III with respect to electrical wiring and equipment.

Where the authority enforcing these rules can satisfactorily determine that flammable liquids having a flash point below 100°F. such as gasoline will not be handled, he may classify such an area as nonhazardous.

1.9(2) Hazardous areas.

a. The space within the dispenser up to four feet from its base and the space within eighteen inches extending horizontally from the dispenser up to four feet from its base shall be considered a Class I, Division 1 location. This classification shall also apply to any space below the dispenser which may contain electrical wiring or equipment.

b. In an outside location, any area (excluding Class I, Division 1, but including buildings not suitably cut off) within twenty feet horizontally from the exterior enclosure of any dispensing pump shall be considered a Class I, Division 2 location which will extend to a level eighteen inches above driveway or ground level.

c. In an outside location, an area (excluding Class I, Division 1, but including buildings not suitably cut off) within ten feet horizontally from any tank fill-pipe shall be considered a Class I, Division 2 location which shall extend upward to a level eighteen inches above driveway or ground level.

d. Electrical wiring and equipment, any portion of which is below the surface of areas defined as Class I, Division 1 or Division 2 in 1.9(2)“a”, “b”, and “c” above shall be considered to be within a Class I, Division 1 location which shall extend at least to the point of emergence above grade.

e. The spherical volume within a three-foot radius from point of discharge of any tank vent-pipe shall be considered a Class I, Division 1 location and the volume between three-foot to five-foot radius from point of discharge of a vent shall be considered a Class I, Division 2 location. For any vent that does not discharge upward, the cylindrical volume below both the Division 1 and 2 locations extending to the ground shall be considered a Class I, Division 2 location. The hazardous area shall not extend beyond an unpierced wall.

1.9(3) Wiring and equipment within hazardous areas. All electrical equipment and wiring within the hazardous areas defined in 1.9(2) shall conform to applicable provisions of 1.3(88A)T.III.

For special requirements for conductor insulation, see 1.3(13).

1.9(4) Wiring and equipment above hazardous areas. Wiring and equipment above hazardous areas defined in 1.9(2) shall conform to 1.7(5) and 1.7(6).

1.9(5) Circuit disconnects. Each circuit leading to or through a dispensing pump shall be provided with a switch or other acceptable means to disconnect simultaneously from the source of supply all conductors of the circuit including the grounded neutral, if any.

1.9(6) Sealing.

a. An approved seal shall be provided in each conduit run entering or leaving a dispenser or any cavities or enclosures in direct communication therewith. The sealing fitting

shall be the first fitting after the conduit emerges from the earth or concrete.

b. Additional seals shall be provided in conformance with 1.3(5) Class I, Division 1, “c” and 1.3(5) Class I, Division 2, “b”, and shall apply to horizontal as well as to vertical boundaries of the defined hazardous areas.

1.9(7) Grounding. Metallic portions of dispensing pumps, metallic raceways, and all noncurrent-carrying portions of electrical equipment regardless of voltage, shall be grounded as provided in 1.3(16)“a”.

1.9(8) Underground wiring shall be installed in rigid metal conduit, or, where buried under not less than two feet of earth, may be installed in nonmetallic conduit provided the potential is 600 volts or less. Where nonmetallic conduit is used, an additional ground conductor shall be included to provide for metallic continuity of the raceway system and for grounding of noncurrent-carrying metallic parts of equipment.

1.10(88A)T.III Bulk-storage plants.

1.10(1) Definitions. This designation shall include locations where gasoline or other volatile flammable liquids are stored in tanks having an aggregate capacity of one carload or more, and from which such products are distributed (usually by tank truck).

1.10(2) Hazardous areas.

a. *Pumps, bleeders, withdrawal fittings, meters and similar devices.*

(1) Adequately ventilated indoor areas containing pumps, bleeders, withdrawal fittings, meters and similar devices which are located in pipe lines handling flammable liquids under pressure shall be considered as Class I, Division 2 locations within a five-foot distance extending in all directions from the exterior surface of such devices. The Class I, Division 2 location shall also extend twenty-five feet horizontally from any surface of these devices and extend upward to three feet above floor or grade level.

(2) Inadequately ventilated indoor areas containing pumps, bleeders, withdrawal fittings, meters and similar devices which are located in pipe lines handling flammable liquids under pressure shall be considered as Class I, Division 1 locations within a five-foot distance extending in all directions from the exterior surface of such devices. The Class I, Division 1 location shall also extend twenty-five feet horizontally from any surface of the devices and extend upward to three feet above floor or grade level.

(3) Outdoor areas containing pumps, bleeders, withdrawal fittings, meters and similar devices which are located in pipe lines handling flammable liquids under pressure shall be considered as Class I, Division 2 locations within a three-foot distance extending in all directions from the exterior surface of such devices. The Class I, Division 2 location shall also extend up to eighteen inches above grade

level within ten feet horizontally from any surface of the devices.

b. Transfer of flammable liquids to individual containers.

(1) In outdoor areas or where positive and reliable mechanical ventilation is provided in indoor areas in which flammable liquids are transferred to individual containers, such areas shall be considered to be a Class I, Division 1 location within three feet of the vent or fill opening extending in all directions and a Class I, Division 2 location within the area extending between a three-foot and five-foot radius from the vent or fill opening extending in all directions, and including the area within a horizontal radius of ten feet from the vent or fill opening and extending to a height of eighteen inches above floor or grade levels.

(2) When positive and reliable mechanical ventilation is not provided in indoor areas in which flammable liquids are transferred to individual containers, such areas shall be considered to be Class I, Division 1 locations.

c. Loading and unloading of tank vehicles and tank cars in outside locations.

(1) The area extending three feet in all directions from the dome when loading through an open dome or from the vent when loading through a closed dome with atmospheric venting shall be considered a Class I, Division 1 location.

(2) The area extending between a three-foot and five-foot radius from the dome when loading through an open dome or from the vent when loading through a closed dome with atmospheric venting shall be considered a Class I, Division 2 location.

(3) The area extending within three feet in all directions from a fixed connection used in bottom loading or unloading, loading through a closed dome with atmospheric venting, or loading through a closed dome with a vapor recovery system, shall be considered a Class I, Division 2 location. In the case of bottom loading or unloading this classification shall also be applied to the area within a ten-foot radius from point of connection and extending eighteen inches above grade.

In deciding upon extent of hazardous area, consideration should be given to the total area within which loading and unloading operation may occur such as racks, platforms, and driveways.

d. Aboveground tanks.

(1) The area above the roof and within the shell of a floating roof type tank shall be considered a Class I, Division 1 location.

(2) For all types of aboveground tanks the area within ten feet from the shell, ends and roof of other than a floating roof shall be considered a Class I, Division 2 location. Where dikes are provided the area inside the dike and extending upward to the top of the dike shall be considered to be a Class I, Division 2 location.

(3) The area within five feet of a vent opening and extending in all directions shall be considered a Class I, Division 1 location.

(4) The area between five and ten feet of a vent opening and extending in all directions shall be considered a Class I, Division 2 location.

For underground tanks see 1.9(88A)T.III.

e. Pits.

(1) Any pit or depression, any part of which lies within a Division 1 or Division 2 location as defined herein, shall be considered a Class I, Division 1 location unless provided with positive and reliable mechanical ventilation.

(2) Any such areas when provided with positive and reliable mechanical ventilation shall be considered a Class I, Division 2 location.

(3) Any pit or depression not within a Division 1 or Division 2 location as defined herein, but which contains piping, valves or fittings shall be classified as a Class I, Division 2 location.

f. Storage and repair garages for tank vehicles shall be considered to be a Class I, Division 2 location up to eighteen inches above floor or grade level unless in the judgment of the authority enforcing these rules conditions warrant more severe classification or a greater extent of the hazardous area.

g. Office buildings, boiler rooms and other similar locations which are outside the limits of hazardous areas as defined herein, and which are not used for handling or storage of volatile flammable liquids or containers for such liquids, shall not be considered to be hazardous locations.

1.10(3) Wiring and equipment within hazardous areas. All electrical wiring and equipment within the hazardous areas defined in 1.10(2) shall conform to applicable provisions of 1.3(88A)T.III.

1.10(4) Wiring and equipment above hazardous areas. All fixed wiring above hazardous areas shall be in metallic raceways or shall be Type ALS cable. Fixed equipment which may produce arcs, sparks or particles of hot metal, such as lamps and lampholders for fixed lighting, cutouts, switches, receptacles, motors, or other equipment having make-and-break or sliding contacts, shall be of totally enclosed type or shall be provided with suitable guards or screens to prevent escape of sparks or hot metal particles. Portable lamps or utilization equipment, and their flexible cords shall conform to the provisions of 1.3(88A)T.III for the class of location above which they are connected or used.

1.10(5) Underground wiring.

a. Underground wiring shall be installed in rigid metal conduit or, where buried under not less than two feet of earth, may be installed in nonmetallic conduit or duct, or in the form of cable approved for the purpose. Where cable is used, it shall be enclosed in rigid metal conduit from the point of lowest

buried cable level to the point of connection to the aboveground raceway.

b. Conductor insulation shall conform to 1.3(13).

c. Where cable with nonmetallic sheath or nonmetallic conduit is used, an additional grounding conductor shall be included to provide for metallic continuity of the raceway system and for grounding of noncurrent-carrying metallic parts of equipment.

1.10(6) Sealing. Approved seals shall be provided in conformance with 1.3(5), Class I, Division 1, "a", and 1.3(5), Class I, Division 2, "b", shall apply to horizontal as well as to vertical boundaries of the defined hazardous areas. Buried raceways under defined hazardous areas shall be considered to be within such areas.

1.10(7) Gasoline dispensing. Where gasoline dispensing is carried on in conjunction with bulk station operations, applicable provisions of 1.9(88A)T.III shall apply.

1.10(8) Grounding. All metallic raceways, and all noncurrent-carrying metallic portions of electrical equipment shall be grounded as provided in 1.3(16)"a".

1.11(88A)T.III Finishing processes.

1.11(1) Definition. This section shall apply to locations where paints, lacquers or other flammable finishes are regularly or frequently applied by spraying, dipping, brushing or by other means, and where volatile flammable solvents or thinners are used or where readily ignitable deposits or residues from such paints, lacquers or finishes may occur.

1.11(2) Hazardous areas. Classification with respect to flammable vapors. For deposits and residues, see 1.11(3).

a. The interiors of spray booths and their exhaust ducts, all space within twenty feet horizontally in any direction from spraying operations more extensive than touch-up spraying and not conducted within spray booths, all space within twenty feet horizontally in any direction from dip tanks and their drain boards, and all other spaces where hazardous concentrations of flammable vapors are likely to occur, shall be considered to be Class I, Division 1 locations.

b. All space within twenty feet horizontally in any direction from the open face of a spray booth, and all space within the room but beyond the limits for Class I, Division 1 as defined in 1.11(2)"a" for extensive open spraying, for dip tanks and drain boards and for other hazardous operations, shall be considered to be Class I, Division 2 locations unless the authority enforcing these rules judges otherwise.

c. Adjacent areas which are cut off from the defined hazardous areas by tight partitions without communicating openings, and within which hazardous vapors are not likely to be released, shall be classed as nonhazardous unless the rule-enforcing authority judges otherwise.

d. Drying and baking areas provided with positive mechanical ventilation adequate to prevent formation of flammable concentrations of vapors, and provided with effective interlocks to de-energize all electric equipment (other than equipment approved for Class I locations) in case the ventilating equipment is inoperative, may be classed as nonhazardous when the rule-enforcing authority so judges.

1.11(3) Wiring and equipment in hazardous areas.

a. All electrical wiring and equipment within the hazardous areas defined in 1.11(2) shall conform to applicable provisions of 1.3(88A)T.III.

b. Unless approved for both readily ignitable deposits and the flammable vapor location, no electrical equipment shall be installed or used where it may be subject to hazardous accumulations of readily ignitable deposits or residues, except that wiring in rigid conduit or in threaded boxes or fittings containing no taps, splices or terminal connections may be installed in such locations. Type MI cable without fittings or boxes may be used.

c. Illumination of readily ignitable areas through panels of glass or other transparent or translucent material is permissible only where: (1) Fixed lighting units are used as the source of illumination, (2) the panel effectively isolates the hazardous area from the area in which the lighting unit is located, (3) the lighting unit is approved for its specific location, (4) the panel is of a material or is so protected that breakage will be unlikely and (5) the arrangement is such that normal accumulations of hazardous residue on the surface of the panel will not be raised to a dangerous temperature by radiation or conduction from the source of illumination.

d. Portable electric lamps or other utilization equipment shall not be used within a hazardous area during operation of the finishing process. When such lamps or utilization equipment are used during cleaning or repairing operations, they shall be of a type approved for Class I locations, and all exposed metal parts shall be effectively grounded.

e. Electrostatic spraying or detearing equipment shall be installed and used only as provided in 1.11(4).

1.11(4) Fixed electrostatic equipment. Where electrostatic spraying and detearing equipment is installed, such equipment shall be of approved type, and shall conform to the following requirements:

a. No transformers, power packs, control apparatus, or other electrical portion of the equipment (except high voltage grids and their connections) shall be installed in any of the hazardous areas defined in 1.11(2) unless of a type approved for location.

b. High voltage grids or electrodes shall be located in suitable noncombustible booths or enclosures provided with adequate mechanical ventilation, shall be rigidly supported and of substantial construction, and shall be effective.

tively insulated from ground by means of non-porous noncombustible insulators.

c. High voltage leads shall be effectively and permanently supported on suitable insulators, shall be effectively guarded against accidental contact or grounding, and shall be provided with automatic means for discharging any residual charge to ground when the supply voltage is interrupted.

d. Goods being processed shall be supported on conveyors in such a manner that minimum clearance between goods and high voltage grids or conductors cannot be less than twice the sparking distance. A conspicuous sign indicating the sparking distance shall be permanently posted near the equipment.

e. Approved automatic controls which will operate without time delay to disconnect the power supply and to signal the operator in case of (1) stoppage of ventilating fans or failure of ventilating equipment from any cause, (2) stoppage of the conveyor carrying goods through the high voltage field, (3) occurrence of a ground or of an imminent ground at any point on the high voltage system, or (4) reduction of clearance below that specified in 1.11(4) "d".

f. Adequate fencing, railings or guards which are electrically conducting and effectively grounded shall be provided for safe isolation of the process, and signs shall be permanently posted designating the process zone as dangerous because of high voltage.

1.11(5) Electrostatic hand spraying equipment. Electrostatic hand spray apparatus and devices used in connection with paint spraying operations shall be of approved types and shall conform to the following requirements:

a. The equipment shall be so designed that the maximum surface temperature of the equipment in the spraying area cannot exceed 150°F. under any condition. The high voltage circuits shall be designed so as to be intrinsically safe and not produce a spark of sufficient intensity to ignite any vapor-air mixtures nor result in appreciable shock hazard upon coming in contact with a grounded object. The electrostatically charged exposed elements of the hand gun shall be capable of being energized only by a switch which also controls the paint supply.

b. Transformers, power packs, control apparatus, and all other electrical portions of the equipment, with the exception of the hand gun itself and its connections to the power supply, shall be located outside of the hazardous area.

c. The handle of the spraying gun shall be electrically connected to ground by a metallic connection and be so constructed that the operator in normal operating position is in intimate electrical contact with the grounded handle. This requirement is to prevent buildup of a static charge on the operator's body.

d. All electrically conductive objects in the spraying area shall be adequately grounded. This requirement shall apply to

paint containers, wash cans and any other objects or devices in the area. The equipment shall carry a prominent permanently installed warning regarding the necessity for this grounding feature.

e. Objects being painted shall be maintained in metallic contact with the conveyor or other grounded support. Hooks shall be regularly cleaned to insure this contact and areas of contact shall be sharp points or knife edges where possible. Points of support of the object shall be concealed from random spray where feasible and where the objects being sprayed are supported from a conveyor, the point of attachment to the conveyor shall be so located as to not collect spray material during normal operation.

f. The spraying operation shall take place within a spray area which is adequately ventilated to remove solvent vapors released from the operation. The electrical equipment shall be so interlocked with the ventilation of spraying area that the equipment cannot be operated unless the ventilation fans are in operation.

1.11(6) Wiring and equipment above hazardous areas.

a. All fixed wiring above hazardous areas shall be in metallic raceways or shall be Type MI cable or Type ALS cable. Cellular metal floor raceways may be used only for supplying ceiling outlets or extensions to the area below the floor of a hazardous area, but such raceways shall have no connections leading into or through the hazardous area above the floor unless suitable seals are provided. No electrical conductor shall be installed in any cell, header or duct which contains a pipe for steam, water, air, gas, drainage, or for other service except electrical.

b. Equipment which may produce arcs, sparks or particles of hot metal, such as lamps and lampholders for fixed lighting, cutouts, switches, receptacles, motors, or other equipment having make-and-break or sliding contacts, where installed above a hazardous area or above an area where freshly finished goods are handled, shall be of totally enclosed type or shall be provided with suitable guards or screens to prevent escape of sparks or hot metal particles.

1.11(7) Grounding. All metallic raceways, and all noncurrent-carrying metallic portions of fixed or portable equipment, regardless of voltage, shall be grounded as provided in 1.3(16) "a".

1.12(88A) T.III Flammable anesthetics.

1.12(1) Definition. Flammable anesthetics are gases or vapors such as cyclopropane, divinyl ether, ethyl chloride, ethyl ether, and ethylene, which may form flammable or explosive mixtures with air, oxygen, or nitrous oxide.

1.12(2) Hazardous areas.

a. Any room or space in which flammable anesthetics or volatile flammable disin-

fecting agents are stored shall be considered to be a Class I, Division 1 location throughout.

b. In an anesthetizing location as defined in 1.12(1), the entire area shall be considered to be a Class I, Division 1 location which shall extend upward to a level five feet above the floor.

1.12(3) Wiring and equipment within hazardous areas.

a. In hazardous areas as defined in 1.12(2), all fixed wiring and equipment, and all portable equipment, including lamps and other utilization equipment, operating at more than eight volts between conductors, shall conform to the requirements of 1.3(1) to 1.3(15), inclusive, and of 1.3(16) "a" and "b", for Class I, Division 1 locations, and all such equipment shall be specifically approved for the hazardous atmospheres involved.

b. Where a box, fitting or enclosure is partially but not entirely within a hazardous area, the hazardous area shall be considered to be extended to include the entire box, fitting or enclosure.

c. Flexible cords which are or may be used in hazardous areas for connection to portable utilization equipment, including lamps operating at more than eight volts between conductors shall be of a type approved for extra hard usage, shall be of ample length, and shall include an additional conductor for grounding. A storage device for the flexible cord shall be provided, and shall not subject the cord to bending at a radius of less than three inches.

d. Receptacles and attachment plugs shall be of the type with provision for connection of the grounding conductor, and where located within a hazardous area, shall be approved for Class I location.

1.12(4) Wiring and equipment above hazardous areas.

a. Wiring above a hazardous area as defined in 1.12(2) "b" shall be installed in metal raceways or shall be Type MI cable or Type ALS cable.

b. Equipment which may produce arcs, sparks or particles of hot metal, such as lamps and lampholders for fixed lighting less than eight feet above the floor, cutouts, switches, receptacles, generators, motors, or other equipment having make-and-break or sliding contacts, shall be of totally enclosed type or shall be provided with suitable guards or screens to prevent escape of sparks or hot metal particles.

c. Surgical and other lighting fixtures shall conform to 1.3(9) Class I, Division 2, except that surface temperature limitations set forth in 1.3(9) Class I, Division 2 "b" shall not apply, and except that integral or pendant switches which are located above and cannot be lowered into the hazardous area need not be explosion-proof.

1.12(5) Sealing. Approved seals shall be provided in conformance with 1.3(5) and 1.3(5) Class I, Division 1, "c", and shall apply to hor-

izontal as well as to vertical boundaries of the defined hazardous areas.

Exception. Seals may be located within eighteen inches of the point at which a conduit emerges from a wall forming the boundary of an anesthetizing location if all of the following conditions are met:

The junction box switch or receptacle contains a seal-off device between the arcing contacts and the conduit.

The conduit is continuous (without coupling or fitting) between the junction box and the sealing fitting within eighteen inches of the point where the conduit emerges from the wall.

1.12(6) Circuits in anesthetizing locations.

a. Except as provided in 1.12(6) "e", each circuit within or partially within an anesthetizing location as defined in 1.12(1) "b" shall be controlled by a switch having a disconnecting pole in each circuit conductor, and shall be supplied from an ungrounded distribution system which shall be isolated from any distribution system supplying areas other than anesthetizing locations. Such isolation may be obtained by means of one or more transformers having no electrical connection between primary and secondary windings, by means of motor generator sets, or by means of suitably isolated batteries.

b. Circuits supplying primaries of isolating transformers shall operate at not more than 300 volts between conductors, and shall be provided with proper overcurrent protection. Secondary voltage of such transformers shall not exceed 300 volts between conductors, and all circuits supplied from such secondaries shall be ungrounded and shall have an approved overcurrent device of proper rating in each conductor. Circuits supplied from batteries or from generators or motor-generator sets shall be ungrounded, and shall be protected against overcurrent in the same manner as transformer secondary circuits.

c. Transformers, motor-generator sets, batteries and battery chargers, together with their overcurrent devices shall be installed in nonhazardous locations, and shall conform to the requirements of 1.7(7).

d. In addition to the usual control and protective devices, the ungrounded system shall be provided with an approved ground contact indicator so arranged that a green signal lamp conspicuously visible to persons in the anesthetizing location remains lighted while the system is isolated from ground. An adjacent red signal lamp and an audible warning signal shall be energized when any conductor of the system becomes grounded through a resistance or a capacitive reactance of any value up to at least 60,000 ohms. The current through the ground indicator to the ground shall not exceed two milliamperes. The indicator and associated signals shall not be installed within a hazardous area.

e. Branch circuits supplying only fixed lighting fixtures above the hazardous location

other than surgical lighting fixtures or supplying only approved permanently installed X-ray equipment may be supplied by a conventional grounded system, provided: (1) Wiring for grounded and ungrounded circuits does not occupy the same raceways; (2) the lighting fixtures and the X-ray equipment (except the enclosed X-ray tube and the metal-enclosed high voltage leads to the tube) are located at least eight feet above the floor or outside the anesthetizing location; and (3) switches for the grounded circuits are located outside of the anesthetizing location.

Note: Remote-control stations for remote-control switches may be installed in the anesthetizing location if the remote-control circuit is energized from the ungrounded distribution system.

1.12(7) Low voltage equipment and instruments.

a. Electrical apparatus and equipment used within a hazardous area, and which has exposed current-carrying elements or which is frequently in contact with the bodies of persons, shall be designed to operate at eight volts or less unless it is entirely surrounded by a metallic casing or sheath. Power supply shall be ungrounded, and shall be electrically isolated from all circuits of higher voltage.

b. Where a low voltage unit receives current from an individual transformer located within a hazardous area, the flexible cord shall conform to 1.12(3)"d", the core and case of the transformer shall be effectively grounded, and the transformer shall be approved for Class I locations.

c. Where low voltage units within a hazardous area are supplied with current from a common source, such as a transformer, motor-generator set, or storage battery, such common source shall be installed in a nonhazardous location. Where located or used within a hazardous area, receptacles and attachment plugs shall be approved for Class I locations. Plugs shall be so designed that they cannot be inserted into receptacles for higher voltage. Flexible cords shall be of adequate length and ampacity, and shall be approved for extra hard usage. An extra conductor for grounding is not required.

d. Low voltage equipment and wiring (including flexible cords) shall be protected from dangerous overcurrents by suitable overcurrent devices or by inherent current limiting characteristics of the source of supply. Overcurrent devices shall not be installed in a hazardous area.

e. Resistance or impedance devices may be used to control low voltage units but shall not be used to limit maximum input voltage. Where a low voltage unit includes a switch or other make-and-break or sliding contact, or where it includes a resistor or resistance device which may under any operating conditions reach a surface temperature exceeding eighty percent of the lowest ignition temperature in degrees centigrade of the gases or vapors that may be present, the unit shall be of a type approved for Class I locations.

1.12(8) Other equipment.

a. Suction, pressure, or insufflation equipment involving electrical elements, and located or used within a hazardous area shall be approved for Class I locations.

b. X-ray equipment installed or operated in an anesthetizing location as defined in 1.12(1)"b", shall be provided with approved means for preventing accumulation of electrostatic charges. All control devices, switches, relays, meters, and transformers shall be totally enclosed, and where installed or operated within a hazardous area, shall be approved for Class I locations. High voltage wiring shall be effectively insulated from ground and adequately guarded against accidental contact.

c. Equipment for generating high frequency currents or voltages such as used in electrocautery, diathermy, and television, where installed or used in an anesthetizing location, shall conform to 1.12(3) and 1.12(4).

1.12(9) *Grounding.* In any hazardous area, all metallic raceways, and all noncurrent-carrying metallic portions of fixed or portable equipment (except equipment operating at not more than eight volts between conductors) shall be grounded as provided in 1.3(16)"a" and "b".

This rule is intended to implement Chapter 88A of the Code.

[Filed January 4, 1967]

GENERAL DIVISION

TITLE IV

CHAPTER 1

EXPLOSIVE-ACTUATED FASTENING TOOLS

1.1(88A)T.IV *Scope.* These rules provide safety requirements for a tool or machine which, actuated by explosives or any similar means, propels a stud, pin, fastener, or other object for the purpose of affixing it by penetration to any other object. These rules do not apply to devices designed for attaching objects to soft construction materials, such as wood, plaster, tar, dry wall board, and the like, or to stud welding equipment.

1.2(88A)T.IV *Purpose.* The purpose of these rules is to provide reasonable safety for life, limb, and property, by establishing requirements for design, care, use, and storage of explosive-actuated fastening tools. Requirements of these rules are expected to apply to tools made and sold after the approval date hereof. These rules shall apply to all explosive-actuated tools and accessory equipment used subsequent to its adoption. Explosive-actuated tools approved or in proper use prior to adoption of these rules need not be modified to conform to these rules unless the labor commissioner considers that sufficient hazard exists to warrant such action, or definite provision is made in these rules.

1.3(88A)T.IV *Exception.* In cases of practical difficulty and unnecessary hardship, the enforcing officers or body may grant exceptions to the literal requirements of these rules,

or permit the use of other devices or methods, but only when it is clearly evident that equivalent protection and safety is thereby secured.

1.4(88A)T.IV Definitions.

1.4(1) *Approved tool.* A tool meeting the requirements of these rules or a tool acceptable to the labor commissioner, after testing by a nationally recognized testing agency when required by the labor commissioner.

1.4(2) *To chamber.* To fit properly without the use of excess force, the case being duly supported.

1.4(3) *Explosive power load, a/k/a (also known as) load.* Any explosive substance in any form capable of producing a propellant force.

1.4(4) *Hammer-operated piston tool—low velocity type.* A device which, by means of a heavy mass hammer supplemented by a load, moves a piston designed to be captive to drive a stud, pin, or fastener into a work surface, always starting the fastener at rest and in contact with the work surface. It shall be so designed that when used with any load that accurately chambers in it, it will not cause such stud, pin, or fastener to have a mean velocity in excess of three hundred feet per second when measured, by use of accepted ballistic test methods, six and five tenths feet from the muzzle end of the barrel. No individual test firing of a series shall exceed three hundred feet per second by more than eight percent.

1.4(5) *High velocity tool.* A device or machine which, when used with a load, propels or discharges a stud, pin, or fastener, at velocities in excess of three hundred feet per second when measured, by use of accepted ballistic test methods, six and five tenths feet from the muzzle end of the barrel for the purpose of impinging it upon, affixing it to, or penetrating another object or material.

1.4(6) *Low velocity piston tool.* A device that utilizes a piston designed to be captive to drive a stud, pin, or fastener into a work surface. It shall be so designed that when used with any load that accurately chambers in it, it will not cause such stud, pin, or fastener to have a mean velocity in excess of three hundred feet per second when measured, by use of accepted ballistic test methods, six and five tenths feet from the muzzle end of the barrel. No individual test firing of a series shall exceed three hundred feet per second by more than eight percent.

1.4(7) *Protective shield or guard.* A device or guard attached to the muzzle end of the tool, which is designed to confine flying particles.

1.4(8) *Qualified operator.* A person who meets the requirements of 1.10(1)"a" or 1.10(1)"b" hereof with respect to the specific tool to be used.

1.4(9) *Stud, pin, or fastener.* A fastening

device specifically designed and manufactured for use in explosive-actuated fastening tools.

1.4(10) *Tool.* An explosive-actuated fastening device unless otherwise indicated, and all accessories pertaining thereto.

1.4(11) *Unapproved tool.* A device not approved, or one which does not meet the requirements of these rules.

1.5(88A)T.IV Design requirements.

1.5(1) High velocity tools shall have the characteristics specified in subrules 1.5(2) through 1.5(6), and, at the discretion of the manufacturer, any additional safety features he may wish to incorporate.

1.5(2) *Protective shield or guard.*

a. The muzzle end of the tool shall have a protective shield or guard at least three and one-half inches in diameter, mounted perpendicular to and concentric with the barrel, and designed to confine any flying fragments or particles that might otherwise create a hazard at the time of firing.

b. Where a standard shield or guard cannot be used, or where it does not cover all apparent avenues through which flying particles might escape, a special shield or guard, fixture, or jig designed and built or approved by the manufacturer of the tool being used, which provides this degree of protection, shall be used as a substitute.

c. The tool shall be so designed that it cannot be fired unless it is equipped with a standard protective shield or guard, or a special shield, guard, fixture, or jig.

1.5(3) *Firing mechanism.*

a. The firing mechanism shall be so designed that the tool cannot fire during loading or preparation to fire, or if the tool should be dropped while loaded.

b. Firing of the tool shall be dependent upon at least two separate and distinct operations of the operator, with the final firing movement being separate from the operation of bringing the tool into the firing position.

c. The tool shall be so designed as not to be operable other than against a work surface, and unless the operator is holding the tool against the work surface with a force of at least five pounds greater than the total weight of the tool.

d. The tool shall be so designed that it will not operate when equipped with the standard guard indexed to the center position if any bearing surface of the guard is tilted more than eight degrees from contact with the work surface.

1.5(4) *Variable power.* The tool shall be so designed that positive means of varying the power are available or can be made available to the operator as part of the tool, or as an auxiliary, in order to make it possible for the operator to select a power level adequate to perform the desired work without excessive force.

1.5(5) *Inspection.* The tool shall be so designed that all breeching parts will be reason-

ably visible to allow a check for any foreign matter that may be present.

1.5(6) Construction. The tool shall be so designed that all parts of the tool will be of adequate strength to resist maximum stresses expected upon firing when using any commercially available load which will chamber in the tool.

1.5(7) Low velocity piston tools shall have the characteristics specified in subrules 1.5(8) through 1.5(12), and, at the discretion of the manufacturer, any additional safety features he may wish to incorporate.

1.5(8) Protective shield or guard. The muzzle end of the tool shall be designed so that suitable protective shields, guards, jigs, or fixtures, designed and built or approved by the manufacturer of the tool being used, can be mounted perpendicular to the barrel.

1.5(9) Firing mechanism.

a. The tool shall be so designed that it shall not in ordinary usage propel or discharge a stud, pin, or fastener while loading or during preparation to fire, or if the tool should be dropped while loaded.

b. Firing of the tool shall be dependent upon at least two separate and distinct operations of the operator, with the final firing movement being separate from the operation of bringing the tool into the firing position.

c. The tool shall be so designed as not to be operable other than against a work surface, and unless the operator is holding the tool against the work surface with a force of at least five pounds greater than the total weight of the tool.

1.5(10) Variable power. The tool shall be so designed that positive means of varying the power are available or can be made available to the operator as part of the tool, or as an auxiliary, in order to make it possible for the operator to select a power level adequate to perform the desired work without excessive force.

1.5(11) Inspection. The tool shall be so designed that all breeching parts will be reasonably visible to allow a check for any foreign matter that may be present.

1.5(12) Construction. The tool shall be so designed that all parts of the tool will be of adequate strength to resist maximum stresses expected upon firing when using any commercially available load which will chamber in the tool.

1.5(13) Hammer-operated piston tools—low velocity type, shall have the characteristics specified in subrules 1.5(14) through 1.5(18), and, at the discretion of the manufacturer, any additional safety features he may wish to incorporate.

1.5(14) Protective shield or guard. The muzzle end of the tool shall be so designed that suitable protective shields, guards, jigs, or fixtures, designed and built or approved by the manufacturer of the tool being used, can be mounted perpendicular to the barrel.

1.5(15) Firing mechanism.

a. The tool shall be so designed that it shall not in ordinary usage propel or discharge a stud, pin, or fastener while loading, or during preparation to fire, or if the tool should be dropped while loaded.

b. The firing mechanism shall be so designed to be insensitive except to a heavy hammer blow (in excess of three foot-pounds). It shall consist of a broad firing surface on which the load impinges, the load being contained in the ram struck by the hammer and the actual firing point of the load variable axially and determined by the length of the fastener used.

c. Firing of the tool shall be dependent upon at least two separate and distinct operations of the operator, with the final firing movement being separate from the operation of bringing the tool into the firing position.

1.5(16) Variable power. The tool shall be so designed that positive means of varying the power are available or can be made available to the operator as part of the tool, or as an auxiliary, in order to make it possible for the operator to select a power level adequate to perform the desired work without excessive force.

1.5(17) Inspection. The tool shall be so designed that all breeching parts will be reasonably visible to allow a check for any foreign matter that may be present.

1.5(18) Construction. The tool shall be so designed that all parts of the tool will be of adequate strength to resist maximum stresses expected upon firing when using any commercially available load which will chamber in the tool.

1.6(88A) T.IV Requirements for loads and fasteners.

1.6(1) Identification of cased loads. There shall be a standard means of identifying the power levels of loads used in tools. Colors and printed descriptions, according to the table below, shall be strikingly printed on the container to provide visual identification. Color identification shall be further placed on each load to provide a visual indication of the power level of the load. Such means of identification shall be a uniform color and numbering system, as follows:

Power Level	COLOR IDENTIFICATION		(Feet Per Second ±45)
	Case Color	Load Color	Nominal Velocity
1	Brass	Gray	300
2	Brass	Brown	390
3	Brass	Green	480
4	Brass	Yellow	570
5	Brass	Red	660
6	Brass	Purple	750
7	Nickel	Gray	840
8	Nickel	Brown	930
9	Nickel	Green	1,020
10	Nickel	Yellow	1,110
11	Nickel	Red	1,200
12	Nickel	Purple	1,290

Note: The nominal velocity applies to three-eighths-inch diameter three hundred fifty-grain ballistic slug fired in a test device and has no reference to actual fastener velocity developed in any specific size or type of tool.

1.6(2) Optional identification. Where means other than the power load levels are to be used to control the penetration, an identification method acceptable to the labor commissioner shall be employed.

1.6(3) Identification of caseless loads. Caseless loads shall be coded to identify similar power load levels by color, number, configuration, or other appropriate method.

1.6(4) No load (cased or caseless) shall be used if it will accurately chamber in any existing approved commercially available low velocity piston tool or hammer operated piston tool—low velocity type—and will cause a fastener to have a mean velocity in excess of three hundred feet per second when measured six and five tenths feet from the muzzle end of the barrel. No individual test firing of a series shall exceed three hundred feet per second by more than eight percent.

1.6(5) Fasteners. Fasteners used in tools shall be only those specifically manufactured for use in such tools.

1.7(88A)T.IV Numbering.

1.7(1) Each approved tool shall bear some legible permanent indication as to its model number, which shall serve as a means of identification for checking approved tools. Each approved tool shall bear a permanent and unique manufacturer's serial number.

1.8(88A)T.IV Operation.

1.8(1) Eye protection. Operators and assistants using tools shall be safeguarded by means of approved face shields, safety goggles, safety glasses, or other approved eye protection as specified in Iowa employment safety commission rules, general division, Title IV, Chapter 4, "Head, Eye and Respiratory Protection". Approved head and face protection shall be used, as required by working conditions.

1.8(2) Inspection. Before using a tool, the operator shall inspect it to determine to his satisfaction that it is clean, that all moving parts operate freely, and that the barrel is free from obstructions.

1.8(3) Defect during use. When a tool develops a defect during use, the operator shall immediately cease to use it, and the tool shall be taken out of service until repaired.

1.8(4) Tool handling. Tools shall not be loaded until just prior to the intended firing time. Neither loaded nor empty tools are to be pointed at any workmen. (Hands should be kept clear of open barrel end.)

1.8(5) Loading. No tools shall be loaded unless being prepared for immediate use, nor shall an unattended tool be left loaded.

1.8(6) Misfires. In case of a misfire, the operator shall hold the tool in the operating position for at least thirty seconds. He shall then try to operate the tool a second time. He shall wait another thirty seconds, holding the tool in the operating position, then he shall proceed to remove the explosive load in strict accordance with the manufacturer's instructions. Misfired cartridges shall where practical be placed carefully in a metal container filled with water, and returned to the supervisor for disposal.

1.8(7) Safeguarding and storage. A tool shall never be left unattended in a place where it would be available to unauthorized persons.

1.8(8) Piercing of materials. Driving into materials easily penetrated shall be avoided unless such materials are backed by a substance that will prevent the pin or fastener from passing completely through and creating a flying missile hazard on the other side.

1.8(9) Materials. Fasteners shall not be driven into very hard or brittle materials including, but not limited to, cast iron, glazed tile, surface-hardened steel, glass block, live rock, face brick, or hollow tile.

1.8(10) Distance from edge of material. Fasteners shall not be driven directly into materials such as brick or concrete closer than three inches from the unsupported edge or corner, or into steel surfaces closer than one-half inch from the unsupported edge or corner, unless a special guard, fixture, or jig is used.

Exception: Low velocity tools may drive no closer than two inches from an edge in concrete or one-quarter inch in steel.

When fastening other materials, such as a two-by-four-inch wood section to a concrete surface, it is permissible to drive a fastener of no greater than seven thirty-seconds-inch shank diameter not closer than two inches from the unsupported edge or corner of the work surface.

1.8(11) Predrilled holes. Fasteners shall not be driven through existing holes unless a positive guide is used to secure accurate alignment.

1.8(12) Spalling. No fastener shall be driven into any spalled area unless proper safety precautions are taken.

1.8(13) Explosive atmosphere. Tools shall not be used in an explosive or flammable atmosphere.

1.8(14) Guards, shields, and attachments. All tools shall be used with the correct shield, guard, or attachment recommended by the manufacturer.

1.9(88A)T.IV Servicing.

1.9(1) Before loading for each day's use, the tool shall be tested to see that safety devices are in proper working condition.

1.9(2) Method of testing shall be in accordance with the manufacturer's recommended procedure.

1.9(3) Any tool found not in safe working order shall be immediately removed from service and not used until proper repairs are made. The owner of the tool shall have it serviced and inspected at regular intervals by competent service personnel, and shall not permit it to be altered or repaired except by competent repairmen.

1.10(88A)T.IV Qualified operator.

1.10(1) Training and testing.

a. The operator shall be trained to clean the tool correctly and to recognize any worn or defective parts or defective operation. He shall also be able to use the tool safely under varying conditions, know the limitations of its use and demonstrate his competence by actually operating the tool in the presence of the person who instructed him in its use. He shall be familiar with the provisions of these rules and the instructions provided by the tool manufacturer for operation, care and safe use of the tool.

b. Nothing in these rules shall be construed as prohibiting instruction by tool manufacturers or their authorized representatives in the safe use of explosive-actuated tools and the issuance of operator cards to those instructed provided that cards are issued only to those meeting the requirements of 1.10(1)"a".

This rule is intended to implement chapter 188A of the Code.

[Filed September 13, 1968]

GENERAL DIVISION

TITLE IV

CHAPTER 2

THRESHOLD LIMIT VALUES*

[Air Pollution]

2.1(88A)T.IV Definitions. For the purpose of this chapter, the following terms shall have the following meanings:

2.1(1) "The committee" shall mean the "American Conference of Governmental and Industrial Hygienists".

2.1(2) "The chairman of the committee" shall mean the chairman of the "American Conference of Governmental and Industrial Hygienists".

2.2(88A)T.IV "Threshold limit values" defined. The threshold limit values refer to airborne concentrations of substances and represent conditions under which it is believed that nearly all workers may be repeatedly exposed, day after day, without adverse effect. Because of wide variation in individual susceptibility, exposure of an occasional individual at or even below the threshold limit may not prevent discomfort, aggravation of a pre-existing condition, or occupational illness.

2.2(1) Clinical tests are becoming available that permit detection of those individuals who will hyperreact upon exposure to certain industrial substances. Being predictive in character, they may be applied as screening tests in the preplacement job examination. Requests for further details of these tests should be directed to the chairman of the committee.

2.2(2) Threshold limits should be used as guides in the control of health hazards and should not be regarded as fine lines between safe and dangerous concentrations. Exceptions are the substances given in Appendix "A" and certain of the substances given a "C" listing. The values not given a "C" listing refer to time-weighted average concentrations for a conventional seven- or eight-hour workday.

2.2(3) Time-weighted average concentrations permit excursions above the limit, provided they are compensated by equivalent excursions below the limit during the workday. The degree of permissible excursion is pegged to the threshold limit value of the particular substance as given in table in Appendix "C" under "Test TLV Factor." Hence, it is not considered appropriate to interpret air concentration values as exceeding time-weighted average limits, if such values lie within the permissible excursions.

2.2(4) The amount by which these concentrations may be exceeded for short periods without injury to health depends upon a number of factors such as the nature of the contaminant, whether very high concentrations even for short periods produce acute poisoning, whether the effects are cumulative, the frequency with which high concentrations occur, and the duration of such periods. All must be taken into consideration in arriving at a decision as to whether a hazardous situation exists. Enlightened industrial hygiene practice inclines toward controlling exposures below the limit rather than maintenance at the limit.

2.2(5) Threshold limits are based on the best available information from industrial experience, from experimental human and animal studies, and when possible, from a combination of the three. The basis on which the values are established may differ from substance to substance; protection against impairment of health may be the guiding factor for some, whereas reasonable freedom from irritation, narcosis, nuisance or other forms of stress may dominate the basis for others. The committee holds to the opinion that limits based on physical irritation should be considered no less binding than those based on physical impairment; growing bodies of evidence indicate that physical irritation may promote and accelerate physical impairment.

2.2(6) These limits are intended for use in the field of industrial hygiene and shall be interpreted and applied only by persons trained in this field. They are not intended for use, or for modification for use, (a) as a relative index of toxicity, by making a ratio

*See also Air Pollution Control, p. 400.

of two limits, (b) in the evaluation or control of community air pollution or air pollution nuisances, (c) in estimating the toxic potential of continuous uninterrupted exposures, (d) as proof or disproof of an existing disease or physical condition, or (e) for adoption by countries whose working conditions differ from those in the United States of America and where substances and processes differ.

2.3(88A)T.IV Documentation of threshold limit values. A separate companion piece to the TLV's is issued by ACGIH under this title. This publication gives the pertinent scientific information and data with reference to literature sources that were used to base each limit. Each documentation also contains a statement defining the type of response against which the limit is safeguarding the worker. For a better understanding of the TLV's it is essential that the documentation be consulted when the TLV's are being used.

2.4(88A)T.IV Ceiling vs. time-weighted average limits. Although the time-weighted average concentration provides the most satisfactory, practical way of monitoring air-borne agents for compliance with the limits, there are certain substances for which it is inappropriate. In the latter group are substances which are predominately fast acting and whose threshold limit is more appropriately based on this particular response. Substances with this type of response are best controlled by a ceiling "C" limit that should not be exceeded. It is implicit in these definitions that the manner of sampling to determine compliance with the limits for each group must differ; a single brief sample, that is applicable to a "C" limit, is not appropriate to the time-weighted limit: Here, a sufficient number of samples is needed to permit a time-weighted average concentration throughout a complete cycle of operations or throughout the work shift.

2.4(1) Whereas the ceiling limit places a definite boundary which concentrations should not be permitted to exceed, the time-weighted average limit requires an explicit limit to the excursions that are permissible above the listed values. The magnitude of these excursions may be pegged to the magnitude of the threshold limit by an appropriate factor shown in Appendix "C". It should be noted that the same factors are used by the committee in making a judgment whether to include or exclude a substance for a "C" listing.

2.5(88A)T.IV "Skin" notation. Listed substances followed by the designation "Skin" refer to the potential contribution to the overall exposure by the cutaneous route including mucous membranes and eye, either by airborne, or more particularly, by direct contact with the substance. Vehicles can alter skin absorption. This attention-calling designation is intended to suggest appropriate measures for the prevention of cutaneous absorption so that the threshold limit is not invalidated.

2.5(1) The commission shall revise the threshold limit values according to legal pro-

cedures outlined in the law upon the publication of each revision promulgated by the American Conference of Governmental Industrial Hygienists. The current TLV shall remain in effect until the new one becomes effective.

2.6(88A)T.IV Mixtures. Special consideration should be given also to the application of these values in assessing the health hazards which may be associated with exposure to mixtures of two or more substances. A brief discussion of basic considerations involved in developing threshold limit values for mixtures, and methods for their development, amplified by specific examples are given in Appendix "B".

2.7(88A)T.IV "Inert" or nuisance particulates. A number of dusts or particulates that occur in working environment ordinarily produce no specific effects upon prolonged inhalation. Some insoluble substances are classed as inert (e.g. iron and steel dusts, cement, silicon carbide, titanium dioxide, cellulose); others may be soluble (starch, soluble oils, calcium carbonate) but are of such a low order of activity that in concentrations ordinarily encountered do not cause physiologic impairment; still others may be rapidly eliminated or destroyed by the body (vegetable oils, glycerine, sucrose). In the case of the insoluble substances, there may be some accumulation in the respiratory passages. In the case of the soluble substances, this accumulation will ordinarily be temporary but may interfere to some extent with respiratory processes. Hence, it is desirable to control the concentrations of such particulates in the air breathed by any individual, in keeping with good industrial hygiene practice.

2.7(1) A threshold limit of 15mg/m³, or 50 mppcf, whichever is less, is recommended for substances in these categories and for which no specific threshold limits have been assigned. This limit, for a normal workday, does not apply to brief exposures at higher concentrations. Neither does it apply to those substances which may cause physiologic impairment at lower concentrations but for which a threshold limit has not yet been adopted. Some "inert" particulates are given in Appendix "D".

2.8(88A)T.IV Simple asphyxiants — "inert" gases or vapors. A number of gases and vapors, when present in high concentrations in air, act primarily as simple asphyxiants without other significant physiologic effects. A TLV may not be recommended for each simple asphyxiant because the limiting factor is the available oxygen. The minimal oxygen content should be eighteen percent by volume under normal atmospheric pressure (equivalent to a partial pressure, pO₂, of 135 mm Hg). Atmospheres deficient in O₂ do not provide adequate warning and most simple asphyxiants are odorless. Several simple asphyxiants are listed in Appendix "E". Some asphyxiants

present an explosion hazard. Account should be taken of this factor in limiting the concentration of the asphyxiant.

2.9(88A)T.IV Physical factors. It is recognized that such physical factors as heat, ultraviolet and ionizing radiation, humidity, abnormal pressure and the like may place added stress on the body so that the effects from exposure at a threshold limit may be altered. Most of these stresses act adversely to increase the toxic response of a substance. Although most threshold limits have built-in safety factors to guard against adverse effects of moderate deviations from normal environments, the safety factors of most substances are not of such a magnitude as to take care of gross deviations. For example, continuous work at temperatures above 90° F. or overtime, extending the work week more than fifty percent, might be considered gross deviations. In such instances judgment must be exercised in the proper adjustments of the threshold limit values.

2.10(88A)T.IV "Notice of intent". At the beginning of each year, proposed actions of the committee for the forthcoming year are issued in the form of a "Notice of Intent." This notice provides not only an opportunity for comment, but solicits suggestions of substances to be added to the list. The suggestions should be accompanied by substantiating evidence.

TABLE 1
RECOMMENDED VALUES
(In Alphabetical Order)

Substance	ppm*	Mg/M**
Acetaldehyde	200	360
Acetic acid	10	25
Acetic anhydride	5	20
Acetone	1,000	2,400
Acetonitrile	40	70
Acetylene dichloride, see 1, 2 Dichloro-ethylene		
Acetylene tetrabromide	1	14
Acrolein	0.1	0.25
Acrylamide-Skin	—	0.3
Acrylonitrile-Skin	20	45
Aldrin-Skin	—	0.25
Allyl alcohol-Skin	2	5
Allyl chloride	1	3
C Allyl glycidyl ether (AGE)	10	45
Allyl propyl disulfide	2	12
2-Aminoethanol, see Ethanolamine		
2-Aminopyridine	0.5	2
Ammonia	50	35
Ammonium sulfamate (Ammate)	—	15
n-Amyl acetate	100	525
sec-Amyl acetate	125	650
Aniline-Skin	5	19
Anisidine (o, p - isomers)-Skin	—	0.5
Antimony & compounds (as Sb)	—	0.5
ANTU (alpha naphthyl thionrea)	—	0.3
Arsenic & Compounds (as As)	—	0.5
Arsine	0.05	0.2
Aziphos-methyl-Skin	—	0.2
Barium (soluble compounds)	—	0.5
C Benzene (benzol)-Skin	25	80
Benzidine-Skin	—	A1
p-Benzoquinone, see Quinone		
Benzoyl peroxide	—	5
Benzyl chloride	1	5
Beryllium	—	0.002
† Biphenyl, see Diphenyl		
Boron oxide	—	15
C Boron trifluoride	1	3
Bromine	0.1	0.7
Bromoform-Skin	0.5	5
Butadiene (1, 3-butadiene)	1,000	2,200
Butanethiol, see Butyl mercaptan		

Substance	ppm*	Mg/M**
2-Butanone	200	590
2-Butoxy ethanol (Butyl Cellosolve)-Skin	50	240
Butyl acetate (n-butyl acetate)	150	710
n-Butyl acetate	150	710
sec-Butyl acetate	200	950
tert-Butyl acetate	200	950
Butyl alcohol	100	300
tert. Butyl alcohol	100	300
C Butylamine-Skin	5	15
tert. Butyl chromate (as CrO3)-Skin	—	0.1
n-Butyl glycidyl ether (BGE)	50	270
Butyl mercaptan	10	35
p-tert. Butyltoluene	10	60
Cadmium (Metal dust and soluble salts)	—	0.2
Cadmium oxide fume	—	0.1
Calcium arsenate	—	1
Calcium oxide	—	5
† Camphor	—	5
Carbaryl (Sevin) (R)	—	5
Carbon black	—	3.5
Carbon dioxide	5,000	9,000
Carbon disulfide-Skin	20	60
Carbon monoxide	50	55
Carbon tetrachloride-Skin	10	65
Chlordane-Skin	—	0.5
Chlorinated camphene-Skin	—	0.5
Chlorinated diphenyl oxide	—	0.5
C Chlorine	1	3
Chlorine dioxide	0.1	0.3
C Chlorine trifluoride	0.1	0.4
C Chloroacetaldehyde	1	3
Chlorobenzene (monochlorobenzene)	75	350
o-Chlorobenzylidene malononitrile (OCBM)	0.05	0.4
Chlorobromomethane	200	1,050
2-Chloro-1, 3 butadiene, see Chloroprene		
Chlorodiphenyl (42% chlorine)-Skin	—	1
Chlorodiphenyl (54% chlorine)-Skin	—	0.5
1, Chloro, 2, 3 epoxypropane, see Epichlorhydrin		
2, Chloroethanol, see Ethylene chlorohydrin		
Chloroethylene, see Vinyl chloride		
C Chloroform (trichloromethane)	50	240
1-Chloro-1-nitropropane	20	100
Chloropicrin	0.1	0.7
Chloroprene (2-chloro-1, 3-butadiene)-Skin	25	90
Chromic acid and chromates (as CrO3)	—	0.1
Coal tar pitch volatiles (benzene soluble fraction) (anthracene, BaP, phenanthrene, acridine, chrysene, pyrene)	—	0.2
† Cobalt	—	—
Copper fume	—	0.1
Dusts and Mists	—	1.0
Cotton dust (raw)	—	1
Crag (R) herbicide	—	15
Cresol (all isomers)-Skin	5	22
Crotonaldehyde	2	6
Cumene-Skin	50	245
Cyanide (as CN)-Skin	—	5
Cyclohexane	300	1,050
Cyclohexanol	50	200
Cyclohexanone	50	200
Cyclohexene	300	1,015
Cyclopentadiene	75	200
2, 4-D	—	10
DDT-Skin	—	1
DDVP-Skin	—	1
Decaborane-Skin	0.05	0.3
Demeton (R)-Skin	—	0.1
Diacetone alcohol (4-hydroxy-4-methyl-2-pentanone)	50	240
1, 2 Diaminoethane, see Ethylenediamine		
Diazomethane	0.2	0.4
Diborane	0.1	0.1
1, 2-Dibromoethane (ethylene dibromide)-Skin	25	190
C o-Dichlorobenzene	50	300
p-Dichlorobenzene	75	450
Dichlorodifluoromethane	1,000	4,950
1, 3-Dichloro-5, 5-dimethyl hydantoin	—	0.2
1, 1-Dichloroethane	100	400
1, 2-Dichloroethane	50	200
1, 2-Dichloroethylene	200	790
C Dichloroethyl ether-Skin	15	90
Dichloromethane, see Methylenechloride		
Dichloromonofluoromethane	1,000	4,200
C 1, 1-Dichloro-1-nitroethane	10	60
1, 2-Dichloropropane, see Propylenedichloride		
Dichlorotetrafluoroethane	1,000	7,000
Diethrin-Skin	—	0.25
Diethylamine	25	75
Diethylamino ethanol-Skin	10	50
Diethylether, see Ethyl ether		
Difluorodibromomethane	100	860
C Diglycidyl ether (DGE)	0.5	2.8
Dihydroxybenzene, see Hydroquinone		
Diisobutyl ketone	50	290
Dimethoxymethane, see Methylal		
Dimethyl acetamide-Skin	10	35
Dimethylamine	10	18

Substance	ppm*	Mg/M ³ **	Substance	ppm*	Mg/M ³ **
Dimethylaminobenzene, see Xylidene			Lead	—	0.2
Dimethylaniline (N-dimethylaniline)-Skin	5	25	Lead arsenate	—	0.15
Dimethylbenzene, see Xylene			Lindane-Skin	—	0.5
Dimethyl 1, 2-dibromo-2, 2-dichloroethyl phosphate, (Dibrom) (R)	—	3	Lithium hydride	—	0.025
Dimethylformamide-Skin	10	30	L. P. G. (Liquified petroleum gas)	1,000	1,800
2, 5 Dimethylheptanone, see Diisobutyl ketone			Magnesium oxide fume	—	15
1, 1-Dimethylhydrazine-Skin	0.5	1	Malathion-Skin	—	15
Dimethylsulfate-Skin	1	5	Manganese	—	5
Dinitrobenzene (all isomers)-Skin	—	1	Mercury-Skin	—	0.1
Dinitro-o-cresol-Skin	—	0.2	Mercury (organic compounds)-Skin	—	0.01
Dinitrotoluene-Skin	—	1.5	Mesityl oxide	25	100
Dioxane (Diethylene dioxide)-Skin	100	360	Methanethiol, see Methyl mercaptan	—	15
Diphenylmethane diisocyanate (See Methylene bisphenyl isocyanate (MDI))			Methoxychlor	—	—
Dipropylene glycol methyl ether-Skin	100	600	2-Methoxyethanol, see Methyl cellosolve	—	—
Di-sec, octyl phthalate (Di-2-ethylhexyl-phthalate)	—	5	Methyl acetate	200	610
Endrin-Skin	—	0.1	Methyl acetylene (propyne)	1,000	1,650
Epichlorhydrin-Skin	5	19	Methyl acetylene-propadiene mixture (MAPP)	1,000	1,800
EPN-Skin	—	0.5	Methyl acrylate-Skin	10	35
1, 2-Epoxypropane, see Propyleneoxide			Methylal (dimethoxymethane)	1,000	3,100
2, 3-Epoxy-1-propanol see Glycidol			Methyl alcohol (methanol)	200	260
Ethanethiol, see Ethylmercaptan			Methylamine	10	12
Ethanolamine	3	6	Methyl amyl alcohol, see Methyl isobutyl carbinol	—	—
2 Ethoxyethanol-Skin	200	740	Methyl (n-amyl) ketone (2-Heptanone)	100	465
2-Ethoxyethylacetate (Cellosolve acetate)-Skin	100	540	C Methyl bromide-Skin	20	80
Ethyl acetate	400	1,400	Methyl butyl ketone, see 2-Hexanone	—	—
Ethyl acrylate-Skin	25	100	Methyl cellosolve-Skin	25	80
Ethyl alcohol (ethanol)	1,000	1,900	Methyl cellosolve acetate-Skin	25	120
Ethylamine	10	18	C Methyl chloride	100	210
Ethyl sec-amyl ketone (5-methyl-3-heptanone)	25	130	Methyl chloroform	350	1,900
Ethyl benzene	100	435	Methylcyclohexane	500	2,000
Ethyl bromide	200	890	Methylcyclohexanol	100	470
Ethyl butyl ketone (3-Heptanone)	50	230	o-Methylcyclohexanone-Skin	100	460
Ethyl chloride	1,000	2,600	Methyl ethyl ketone (MEK), see 2-Butanone	—	—
Ethyl ether	400	1,200	Methyl formate	100	250
Ethyl formate	100	300	Methyl iodide-Skin	5	28
C Ethyl mercaptan	10	25	Methyl isobutyl carbinol-Skin	25	100
Ethyl silicate	100	850	Methyl isobutyl ketone, see Hexone	—	—
Ethylene chlorohydrin-Skin	5	16	Methyl isocyanate-Skin	0.02	0.05
Ethylenediamine	10	25	Methyl mercaptan	10	20
Ethylene dibromide, see 1, 2-Dibromoethane			Methyl methacrylate	100	410
Ethylene dichloride, see 1, 2-Dichloroethane			Methyl propyl ketone, see 2-Pentanone	—	—
C Ethylene glycol dinitrate-Skin	0.2	1.2	C o-Methyl styrene	100	480
Ethylene glycol monomethyl ether acetate, see Methyl cellosolve acetate			C Methylene bisphenyl isocyanate (MDI)	0.02	0.2
Ethylene imine-Skin	0.5	1	Methylene chloride (dichloromethane)	500	1,740
Ethylene oxide	50	90	Molybdenum (soluble compounds)	—	5
Ethylidene chloride, see 1, 1-Dichloroethane			(insoluble compounds)	—	15
N-Ethylmorpholine-Skin	20	94	Monomethyl aniline-Skin	2	9
Ferbam	—	15	C Monomethyl hydrazine-Skin	0.2	0.35
Ferrovandium dust	—	1	Morpholine-Skin	20	70
Fluoride (as F)	—	2.5	† Naphtha (coal tar)	200	800
Fluorine	0.1	0.2	Naphthalene	10	50
Fluorotrichloromethane	1,000	5,600	B-Naphthylamine	—	A*
C Formaldehyde	5	9	Nickel carbonyl	0.001	0.007
Formic acid	5	6	Nickel, metal and soluble compounds	—	1
Furfural-Skin	5	20	Nicotine-Skin	—	0.5
Furfuryl alcohol	50	200	Nitric acid	2	5
Gasoline	—	A6	p-Nitroaniline-Skin	1	6
Glycidol (2, 3-Epoxy-1-propanol)	50	150	Nitrobenzene-Skin	1	5
Glycol monoethyl ether, see 2-Ethoxyethanol			p-Nitrochloro-benzene-Skin	—	1
Guthion, see Azinphosmethyl			Nitroethane	100	310
Hafnium	—	0.5	Nitrogen dioxide	5	9
Heptachlor-Skin	—	0.5	Nitrogen trifluoride	10	29
† Heptane (n-heptane)	500	2,000	C Nitroglycerin-Skin	0.2	2
Hexachloroethane-Skin	1	10	Nitromethane	100	250
Hexane (n-hexane)	500	1,800	1-Nitropropane	25	90
2-Hexanone	100	410	2-Nitropropane	25	90
Hexone	100	410	N-Nitrosodimethyl-amine (Di-methyl-nitrosamine)-Skin	—	A*
Sec-Hexyl acetate	50	300	Nitrotoluene-Skin	5	30
Hydrazine-Skin	1	1.3	Nitrotrichloromethane, see Chloropierin	—	—
Hydrogen bromide	3	10	† Octane	—	5
C Hydrogen chloride	5	7	Oil mist (mineral)	—	0.002
Hydrogen cyanide-Skin	10	11	Osmium tetroxide	—	1
Hydrogen fluoride	3	2	Oxalic acid	—	0.1
Hydrogen peroxide, 90%	1	1.4	Oxygen difluoride	0.05	0.1
Hydrogen selenide	0.05	0.2	Ozone	0.1	0.2
Hydrogen sulfide	10	15	Parathion-Skin	—	0.1
Hydroquinone	—	2	Pentaborane	0.005	0.01
C Iodine	0.1	10	Pentachloronaphthalene-Skin	—	0.5
Iron oxide fume	—	10	Pentachlorophenol-Skin	—	0.5
Isoamyl alcohol	100	360	Pentane	1,000	2,950
Isoamyl acetate	100	525	2-Pentanone	200	700
Isobutyl acetate	150	700	Perchloroethylene	100	670
Isophorone	25	140	Perchloromethyl mercaptan	0.1	0.8
Isopropyl acetate	250	950	Perchloryl fluoride	3	13.5
Isopropyl alcohol	400	980	Petroleum Distillates (naphtha)	500	2,000
Isopropylamine	5	12	Phenol-Skin	5	19
Isopropylether	500	2,100	p-Phenylene diamine-Skin	—	0.1
Isopropyl glycidyl ether (IGE)	50	240	Phenyl ether (vapor)	1	7
Ketene	0.5	0.9	Phenyl ether-Biphenyl mixture (vapor)	1	7
			Phenylethylene, see Styrene	—	—
			Phenyl glycidyl ether (PGE)	50	310
			Phenylhydrazine-Skin	5	22
			Phosdrin (Mevinphos) (R)-Skin	—	0.1
			Phosgene (carbonyl chloride)	0.1	0.4
			Phosphine	0.3	0.4
			Phosphoric acid	—	1
			Phosphoric (yellow)	—	0.1

Substance	ppm*	Mg/M***
Phosphorus pentachloride	—	1
Phosphorus pentasulfide	—	1
Phosphorus trichloride	0.5	3
Phthalic anhydride	2	12
Picric acid-Skin	—	0.1
Pival (2-Bivalyl-1, 3-indandione)	—	0.1
Platinum (Soluble Salts)	—	0.002
Polytetrafluoroethylene decomposition products	—	A ⁴
Propane	1,000	1,800
B-Propiolactone	—	A ⁴
n-Propyl acetate	200	840
n-Propyl nitrate	25	110
Propylene dichloride	75	350
Propylene imine-Skin	2	5
Propylene oxide	100	240
Propyne, see Methylacetylene	—	—
Pyrethrum	—	5
Pyridine	5	15
Quinone	0.1	0.4
Rhodium, Metal fume and dusts	—	0.1
Soluble salts	—	0.001
Rotenone (commercial)	—	5
Selenium compounds (as Se)	—	0.2
Selenium hexafluoride	0.05	0.4
Silver, metal and soluble compounds	—	0.01
Sodium fluoroacetate (1080)-Skin	—	0.05
Sodium hydroxide	—	2
Stibine	0.1	0.5
† Stoddard solvent	500	2,900
Strychnine	—	0.15
†C Styrene monomer (phenylethylene)	100	420
Sulfur dioxide	5	13
Sulfur hexafluoride	1,000	6,000
Sulfuric acid	—	1
Sulfur monochloride	1	6
Sulfur pentafluoride	0.025	0.25
Sulfuryl fluoride	5	20
Systox, see Demeton	—	—
2, 4, 5 T	—	10
Tantalum	—	5
TEDP-Skin	—	0.2
Teflon (R) decomposition products	—	A ⁴
Tellurium	—	0.1
Tellurium hexafluoride	0.02	0.2
TEPP-Skin	—	0.05
1, 1, 1, 2-Tetrachloro-2, 2-difluoroethane	500	4,170
1, 1, 2, 2-Tetrachloro-1, 2-difluoroethane	500	4,170
1, 1, 2, 2-Tetrachloroethane-Skin	5	35
Tetrachloroethylene, see Perchloroethylene	—	—
Tetrachloromethane, see Carbon tetrachloride	—	—
Tetraethyl lead (as Pb)-Skin	—	0.075
Tetrahydrofuran	200	590
Tetramethyl lead (TML) (as lead)-Skin	—	0.075
Tetramethyl succinonitrile-Skin	0.5	3
Tetranitromethane	1	8
Tetryl (2, 4, 6-trinitrophenylmethylnitramine)-Skin	—	1.5
Thallium (soluble compounds)-Skin	—	0.1
Thiram	—	5
Tin (inorganic cmpds., except oxide)	—	2
Tin (organic cmpds.)	—	0.1
Titanium dioxide	—	15
Toluene (toluol)	200	750
C Toluene-2, 4-diisocyanate	0.02	0.14
c-Toluidine-Skin	5	22
Toxaphene, see Chlorinated camphene	—	—
1, 1, 1-Trichloroethane, see Methyl chloroform	—	—
+ 1, 1, 2-Trichloroethane-Skin	10	45
Trichloroethylene	100	535
Trichloromethane, see Chloroform	—	—
Trichloronaphthalene-Skin	—	5
1, 2, 3-Trichloropropane	50	300
1, 1, 2-Trichloro 1, 2, 2-trifluoroethane	1,000	7,600
Triethylamine	25	100
Trifluoromonomobromomethane	1,000	6,100
2, 4, 6-Trinitrophenol see Picric acid	—	—
2, 4, 6-Trinitrophenylmethylnitramine, see Tetryl	—	—
Trinitrotoluene-Skin	—	1.5
Triorthoacresyl phosphate	—	0.1
Triphenyl phosphate	—	3
Turpentine	100	560
† Uranium (soluble compounds)	—	0.05
(insoluble compounds)	—	0.25
C Vanadium (V ₂ O ₅ dust)	—	0.5
(V ₂ O ₅ fume)	—	0.1
Vinyl benzene, see Styrene	—	—
C Vinyl chloride	500	1,300
Vinylcyanide, see Acrylonitrile	—	—
Vinyl toluene	100	480
Warfarin	—	0.1
Xylene (xylo)	100	435
Xylidine-Skin	5	25
Yttrium	—	1
Zinc oxide fume	—	5
Zirconium compounds (as Zr)	—	5

Radioactivity: For permissible concentrations of radioisotopes in air, see U. S. Department of Commerce, National Bureau of Standards, Handbook 69, "Maximum Permissible Body Burdens and Maximum Permissible Concentrations of Radionuclides in Air and in Water for Occupational Exposure," June 5, 1959. Also, see U. S. Department of Commerce National Bureau of Standards, Handbook 59, "Permissible Dose from External Sources of Ionizing Radiation," September 24, 1954, and addendum of April 15, 1958.

* Parts of vapor or gas per million parts of contaminated air by volume at 25° C and 760 mm. Hg pressure.

** Approximate milligrams of particulate per cubic meter of air.

A Numbers, See Appendix A.

† See Intended Values.

TABLE II

RESPIRABLE DUSTS EVALUATED BY COUNT

Substance	m.p.p.c.f.*
SILICA	
Crystalline	
Quartz, Threshold Limit calculated from the formula . . .	250**
Cristobalite " " "	%SiO ₂ +5
Amorphous, including natural diatomaceous earth	20
Tremolite	5
SILICATES (less than 1% crystalline silica)	
Asbestos	5
Mica	20
Soapstone	20
Talc	20
Portland Cement	50
GRAPHITE (natural)	15
"Inert" or Nuisance Particulates	50 (or 15 mg/m ³ whichever is the smaller)

see Appendix D

Conversion factors

mppcf × 35.3 = million particles per cubic meter
= particles per c. c.

* Millions of particles per cubic foot of air, based on impinger samples counted by light-field techniques.

** The percentage of crystalline silica in the formula is the amount determined from air-borne samples, except in those instances in which other methods have been shown to be applicable.

Appendix A

A¹ Benzidine. Because of high incidence of bladder tumors in man, any exposure, including skin, is extremely hazardous.

A² B-Naphthylamine. Because of the extremely high incidence of bladder tumors in workers handling this compound and the inability to control exposures, B-naphthylamine has been prohibited by the State of Pennsylvania from manufacture, use and other activities that involve human contact.

A³ N-Nitrosodimethylamine. Because of extremely high toxicity and presumed carcinogenic potential of this compound, contact by any route should not be permitted.

A⁴ Polytetrafluoroethylene* decomposition products. Thermal decomposition of the fluorocarbon chain in air leads to the formation of oxidized products containing carbon, fluorine and oxygen. Because these products decompose in part by hydrolysis in alkaline solution, they can be quantitatively determined in air as fluoride to provide an index of exposure. No TLV is recommended pending determination of the toxicity of the products, but air concentrations should be minimal.

A⁵ B-Propiolactone. Because of high acute toxicity and demonstrated skin tumor production in animals, contact by any route should be avoided.

A⁶ Gasoline. The composition of gasoline varies greatly and thus a single TLV for all types of gasoline is no longer applicable. In general, the aromatic hydrocarbon content will determine what TLV applies. Consequently the content of benzene, other aromatics and additives should be determined to arrive at the appropriate TLV (Elkins, et al. A.I.H. A.J. 24, 99, 1963).

*Trade Names: Algoflon, Fluon, Halon, Teflon, Tetran.

Appendix B

B.1 THRESHOLD LIMIT VALUES FOR MIXTURES

When two or more hazardous substances are present, their combined effect, rather than that of either individually, should be given primary consideration. In the absence of information to the contrary, the effects of the different hazards should be considered as additive. That is, if the sum of the following fractions.

$$\frac{C_1}{T_1} + \frac{C_2}{T_2} + \dots + \frac{C_n}{T_n}$$

exceeds unity, then the threshold limit of the mixture should be considered as being exceeded. C_i indicates the observed atmospheric concentration, and T_i the corresponding threshold limit. (See Example 1A.a.).

Exceptions to the above rule may be made when there is good reason to believe that the chief effects of the different harmful substances are not in fact additive, but independent as when purely local effects on different organs of the body are produced by the various components of the mixture. In such cases the threshold limit ordinarily is exceeded only when at least one member of the series ($\frac{C_1}{T_1}$ or $\frac{C_2}{T_2}$ etc.) itself has a value exceeding unity, (See Example 1A.b.).

Example 1A.b.).

Antagonistic action or potentiation may occur with some combinations of atmospheric contaminants. Such cases at present must be determined individually. Potentiating or antagonistic agents are not necessarily harmful by themselves. Potentiating effects of exposure to such agents by routes other than that of inhalation is also possible, e.g. imbibed alcohol and inhaled narcotic (trichloroethylene). Potentiation is characteristically exhibited at high concentrations, less probably at low.

When a given operation or process characteristically emits a number of harmful dusts, fumes, vapors or gases, it will frequently be only feasible to attempt to evaluate the hazard by measurement of a single substance. In such cases, the threshold limit used for this substance should be reduced by a suitable factor, the magnitude of which will depend on the number, toxicity and relative quantity of the other contaminants ordinarily present.

Examples of processes which are typically associated with two or more harmful atmospheric contaminants are welding, automobile repair, blasting, painting, lacquering, certain foundry operations, diesel exhausts, etc. (Example 2.)

TABLE III

THRESHOLD LIMIT VALUES FOR MIXTURES

EXAMPLES

1A. General case, where air is analyzed for each component.

a. Additive Effects

$$\frac{C_1}{T_1} + \frac{C_2}{T_2} + \frac{C_3}{T_3} + \dots + \frac{C_n}{T_n} = 1$$

Air contains 5 ppm of carbon tetrachloride (TLV, 10), 20 ppm of ethylene dichloride (TLV, 50) and 10 ppm of ethylene dibromide, (TLV, 25).

$$\frac{5}{10} + \frac{20}{50} + \frac{10}{25} = \frac{65}{50} = 1.3$$

Threshold limit is exceeded.

b. Independent Effects

Air contains 0.15 mg/m³ of lead (TLV, 0.2) and 0.7 mg/m³ of sulfuric acid (TLV, 1).

$$\frac{0.15}{0.20} = 0.75; \quad \frac{0.7}{1} = 0.7$$

Threshold limit is not exceeded.

1B. Special case when source of contaminant is a mixture and atmospheric composition is assumed similar to that of original material, i. e. vapor pressure of each component is the same at the observed temperature.

a. Additive effects, approximate solution.

1. A mixture of equal parts (1) trichloroethylene (TLV, 100), and (2) methylchloroform (TLV, 350).

$$\frac{C_1}{100} + \frac{C_2}{350} = \frac{C_m}{T_m}$$

Solution applicable to "spot" solvent mixture usage, where all or nearly all, solvent evaporates.

$$C_1 = C_2 = \frac{1}{2} C_m$$

$$\frac{C_1}{100} + \frac{C_1}{350} = \frac{2C_1}{T_m}$$

$$\frac{7C_1}{700} + \frac{2C_1}{700} = \frac{2C_1}{T_m}$$

$$T_m = 700 \times \frac{2}{9} = 155 \text{ ppm}$$

1B. b. General Exact Solution for Mixtures of N Components With Additive Effects and Different Vapor Pressures.

$$(1) \frac{C_1}{T_1} + \frac{C_2}{T_2} + \dots + \frac{C_n}{T_n} = 1;$$

$$(2) C_1 + C_2 + \dots + C_n = T;$$

$$(2.1) \frac{C_1}{T} + \frac{C_2}{T} + \dots + \frac{C_n}{T} = 1.$$

By the Law of Partial Pressures,

$$(3) C_i = ap_i,$$

And by Raoult's Law,

$$(4) p_i = F_i p_i^{\circ}$$

Combine (3) and (4) to obtain

$$(5) C_i = aF_i p_i^{\circ}$$

Combining (1), (2, 1) and (5), we obtain

$$(6) \frac{F_1 p_1^{\circ}}{T} + \frac{F_2 p_2^{\circ}}{T} + \dots + \frac{F_n p_n^{\circ}}{T} = 1$$

$$\frac{F_1 p_1^{\circ}}{T_1} + \frac{F_2 p_2^{\circ}}{T_2} + \dots + \frac{F_n p_n^{\circ}}{T_n}$$

and solving for T,

$$(6.1) T = \frac{F_1 p_1^{\circ} + F_2 p_2^{\circ} + \dots + F_n p_n^{\circ}}{\frac{F_1 p_1^{\circ}}{T_1} + \frac{F_2 p_2^{\circ}}{T_2} + \dots + \frac{F_n p_n^{\circ}}{T_n}}$$

$$\text{or } \sum_{i=1}^n \frac{F_i p_i^{\circ}}{T_i}$$

$$(6.2) T = \frac{\sum_{i=1}^n F_i p_i^{\circ}}{\sum_{i=1}^n \frac{F_i p_i^{\circ}}{T_i}}$$

T = Threshold Limit Value in ppm.
C = Vapor concentration in ppm.
p = Vapor pressure of component in solution.

p^o = Vapor pressure of pure component.
F = Mol fraction of component in solution.
a = A constant of proportionality.

Subscripts 1, 2, . . . n relate the above quantities to components 1, 2, . . . n, respectively. Subscript i refers to an arbitrary component from 1 to n. Absence of subscript relates the quantity to the mixture.

Solution to be applied when there is a reservoir of the solvent mixture whose composition does not change appreciably by evaporation.

Exact Arithmetic Solution of Specific Mixture

	Mol. wt.	Density	T	p ^o at 25°C	Mol fraction in half-and half solution by volume
Trichloroethylene	(1) 131.4	1.46 g/ml	100	73mm Hg	0.527
Methylchloroform	(2) 133.42	1.33 g/ml	350	125mm Hg	0.473

$$F_{1p} = (0.527) (73) = 38.2$$

$$F_{2p} = (0.473) (125) = 59.2$$

$$T = \frac{38.2 + 59.2}{100} = \frac{(97.4)}{100} = 0.974$$

$$T = \frac{(350)}{133.8 + 59.2} = \frac{(97.4) (350)}{193.0} = 177$$

T=177 ppm (Note difference in T.L.V. when account is taken of vapor pressure and mol fraction in comparison with above example where such account is not taken).

2. A mixture of one part of (1) parathion (TLV, 0.1) and two parts of (2) EPN (TLV, 0.5).

$$\frac{C_1}{0.1} + \frac{C_2}{0.5} = \frac{C_m}{T_m} \quad C_2 = 2C_1$$

$$C_m = 3C_1$$

$$\frac{C_1}{0.1} + \frac{2C_1}{0.5} = \frac{3C_1}{T_m}$$

$$\frac{7C_1}{0.5} = \frac{3C_1}{T_m}$$

$$T_m = \frac{1.5}{7} = 0.21 \text{ mg/m}^3$$

1C. T.L.V. for Mixtures of Mineral Dusts.

For mixtures of biologically active mineral dusts the general formula for mixtures may be used. With the exception of asbestos, pure minerals are assigned TLV of 2.5, 20 or 50. For a mixture containing 80% talc and 20% quartz, the TLV for 100% of the mixture "C" is given by:

$$TLV = \frac{1}{\frac{0.8}{2.5} + \frac{0.2}{20}} = 8.4 \text{ mppcf}$$

Essentially the same result will be obtained if the limit of the more (most) toxic component is used provided the effects are additive. In the above example the limit for 20% quartz is 10 mppcf.

For another mixture of 25% quartz 25% amorphous silica and 50% talc:

$$TLV = \frac{1}{\frac{0.25}{2.5} + \frac{0.25}{20} + \frac{0.5}{20}} = 7.3 \text{ mppcf}$$

The limit for 25% quarts approximates 8 mppcf.

Appendix C

BASES FOR ASSIGNING LIMITING "C" VALUES

By definition in the Preface, a listed value bearing a "C" designation refers to "ceiling" value that should not be exceeded; all values should fluctuate below the listed value. In general the bases for assigning or not assigning a "C" value rest on whether excursions of concentration above a proposed limit for periods up to 15 minutes may result in a) intolerable irritation, b) chronic, or irreversible tissue change, or c) narcosis of sufficient degree to increase accident proneness, impair self rescue or materially reduce work efficiency.

In order for the Committee to decide whether a substance is a candidate for a "C" listing, some guidelines must be formulated on the permissive fluctuation above the limit in terms of the seriousness of the response in the categories a, b, c, given above. For this the factors given in the table below have been used by the Committee. For both technical and practical reasons, the factors have been pegged to the concentration in an inverse manner. It will be noted that as the magnitude of the T.L.V. increases a correspondingly decreased range of fluctuation is permitted; not to decrease the factor for T.L.V.s of increasing magnitude would permit exposures to large absolute quantities, an undesirable condition, a condition that is minimized at low T.L.V.s. Moreover, larger factors at the lower T.L.V.s are consistent with the difficulties in analyzing and controlling trace quantities.

T.L.V. Range ppm* or mg/m ³	Test T.L.V. Factor	Examples
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0 to 1	3	Toluene diisocyanate-T.L.V., 0.02 ppm, if permitted to rise above 0.06 ppm may result in sensitization in a single subsequent exposure. "C" listing recommended on category b.
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T.L.V. Range ppm* or mg/m ³	Test T.L.V. Factor	Examples
1+ to 10	2	Manganese-T.L.V., 5mg/m ³ , contains little or no safety factor. All values should fluctuate below 5mg/m ³ . "C" listing recommended on category b.
10+ to 100	1.5	Methyl styrene-T.L.V. 100 if encountered at levels of 150 ppm will prove intensely irritating, "C" listing recommended on category a.
100+ to 1000	1.25	Methyl chloroform-T.L.V. 350 ppm, at 438 ppm for periods not exceeding 15 minutes is not expected to result in untoward effects relating to category c. No "C" listing recommended.

*Whichever unit is applicable.

PERMISSIBLE EXCURSIONS FOR TIME-WEIGHTED AVERAGE (TWA) LIMITS

As stated in the preface, the same factors may be used as guides for reasonable excursions above the limit for substances to which the time-weighted average applies. The time-weighted average implies that each excursion above the limit is compensated by a comparable excursion below the limit. Thus, a value of 6-ppm HF is permissible for periods not exceeding 15 minutes, provided an equivalent decrease below the limit of 3-ppm obtains.

Appendix D

Some "Inert" or Nuisance Particulates*

Alundum (Al ₂ O ₃)	Limestone
Calcium carbonate	Magnesite
Cellulose	Marble
Portland Cement	Plaster of Paris
Corundum (Al ₂ O ₃)	Rouge
Emery	Silicon Carbide
Glycerine Mist	Starch
Graphite (synthetic)	Sucrose
Gypsum	Tin Oxide
Vegetable oil mists (except castor, cashew nut, or similar irritant oils)	Titanium Dioxide

*When toxic impurities are not present.

Appendix E

Some Simple Asphyxiants—"Inert" Gases and Vapors.

Acetylene	Hydrogen
Argon	Methane
Ethane	Neon
Ethylene	Nitrogen
Helium	Nitrous Oxide

This rule is intended to implement chapter 88A of the Code.

[Filed May 16, 1968]

GENERAL DIVISION

TITLE IV

CHAPTER 3

PORTABLE WOOD LADDERS

3.1(88A) T.IV General.

3.1(1) Scope. These rules are intended to prescribe and establish minimum requirements for the construction, care, and use of the common types of portable wood ladders, in order to insure safety under normal conditions of usage. In cases of practical difficulty or under special service conditions, the labor commissioner may grant exceptions from the literal requirements of these rules, or may permit the use of alternative designs or features, but only if equivalent safety is thereby secured.

3.1(2) Purpose. The purpose of these rules is to provide reasonable safety for life, limb, and property.

3.1(3) Mandatory and advisory rules. Mandatory requirements of these rules are characterized by the word "shall". If a rule is of an advisory nature, it is indicated by the word "should" or is stated as a recommendation.

3.1(4) Equivalent. The word "equivalent" in these rules shall be interpreted to mean alternative designs or features which will provide an equal degree of safety.

3.2(88A) T.IV Definitions.

3.2(1) Ladders. A ladder is an appliance usually consisting of two side rails joined at regular intervals by crosspieces called steps, rungs, or cleats, on which a person may step in ascending or descending.

a. Stepladder. A stepladder is a self-supporting portable ladder, nonadjustable in length, having flat steps and a hinged back. Its size is designated by the over-all length of the ladder measured along the front edge of the side rails.

b. Single ladder. A single ladder is a nonself-supporting portable ladder, nonadjustable in length, consisting of but one section. Its size is designated by the over-all length of the side rail.

c. Extension ladder. An extension ladder is a nonself-supporting portable ladder adjustable in length. It consists of two or more sections traveling in guides or brackets so arranged as to permit length adjustment. Its size is designated by the sum of the lengths of the sections measured along the side rails.

d. Sectional ladder. A sectional ladder is a nonself-supporting portable ladder, nonadjustable in length, consisting of two or more sections of ladder so constructed that the sections may be combined to function as a single ladder. Its size is designated by the over-all length of the assembled sections.

e. Trestle ladder. A trestle ladder is a self-supporting portable ladder, nonadjustable in length, consisting of two sections hinged at the top to form equal angles with the base. The size is designated by the length of the side rails measured along the front edge.

f. Extension trestle ladder. An extension trestle ladder is a self-supporting portable ladder, adjustable in length, consisting of a trestle ladder base and a vertically adjustable single ladder, with suitable means for locking the ladders together. The size is designated by the length of the trestle ladder base.

g. Special-purpose ladder. A special-purpose ladder is a portable ladder which represents either a modification or a combination of design or construction features in one of the general-purpose types of ladders previously defined, in order to adapt the ladder to special or specific uses.

h. Trolley ladder. A trolley ladder is a semifixed ladder, nonadjustable in length, sup-

ported by attachments to an overhead track, the plane of the ladder being at right angles to the plane of motion.

i. Side-rolling ladder. A side-rolling ladder is a semifixed ladder, nonadjustable in length, supported by attachments to a guide rail, which is generally fastened to shelving, the plane of the ladder being also its plane of motion.

3.2(2) Wood characteristics. Wood characteristics are distinguishing features which by their extent and number determine the quality of a piece of wood.

a. Wood irregularities. Wood irregularities are natural characteristics in or on wood that may lower its durability, strength, or utility. Some irregularities as described further are prohibited, while others, such as cross grain, knots, pitch and bark pockets, checks, and compression wood, are permitted to a limited degree.

(1) *Cross grain.* Cross grain (slope of grain) is a deviation of the fiber direction from a line parallel to the sides of the piece. Cross grain may be diagonal, or spiral, or both. Cross grain is limited in terms of its slope, which is established as the distance along the sides of the piece in which a deviation of grain of one inch occurs. (For example, cross grain with a slope of one in twelve means that, in a distance of twelve inches, the grain deviates one inch from the edge of the piece. The slope of grain shall be measured over a distance which will assure the determination of the general slope of the grain not influenced by short local deviations.)

Local deviations of grain from the general slope in the piece are usually associated with a knot or other irregularity which may or may not be present in the piece. In addition to the limits on general slope of grain, it is desirable also, in pieces of small cross section such as occur in ladder parts, to limit the occurrence of local deviations except for those which are associated with otherwise permitted irregularities appearing in the piece.

(2) *Knot.* A knot is a branch or limb, imbedded in the tree and cut through in the process of lumber manufacture, classified according to size, quality, and occurrence. The size of the knot is determined as the average diameter on the surface of the piece.

(3) *Pitch and bark pockets.* A pitch pocket is an opening extending parallel to the annual growth rings containing, or that has contained, pitch, either solid or liquid. A bark pocket is an opening between annual growth rings that contains bark. Bark pockets appear as dark streaks on radial surfaces and as rounded areas on tangential surfaces.

(4) *Shake.* A shake is a separation along the grain, most of which occurs between the rings of annual growth.

(5) *Check.* A check is a lengthwise separation of the wood, most of which occurs across the rings of annual growth.

(6) *Wane*. Wane is bark, or the lack of wood from any cause, on the corner of a piece.

(7) *Decay*. Decay is disintegration of wood substance due to action of wood-destroying fungi. It is also known as dote and rot.

(8) *Compression failure*. A compression failure is a deformation (buckling) of the fibers due to excessive compression along the grain. This deformation may appear as a wrinkle across the surface. In some cases compression failures may be present but not visible as wrinkles; in such cases they are often indicated by "fiber breakage" on end grain surfaces.

(9) *Compression wood*. Compression wood is an aberrant (abnormal) and highly variable type of wood structure occurring in softwood species. The wood commonly has density somewhat higher than does normal wood, but somewhat lower stiffness and tensile strength for its weight in addition to high longitudinal shrinkage which frequently causes warping of long, slender structural members such as ladder rails. This variant type of wood structure is readily identified in competent and conscientious visual examinations by relatively wide annual rings having large proportions of summerwood which is commonly yellow in color in contrast to brown or reddish coloration of typical summerwood. Such yellow summerwood merges with springwood of the same annual rings rather than being more sharply delineated as occurs in many softwood species. The seriousness of compression wood effects on strength and warping varies with the proportion of summerwood and with the number of consecutive annual rings that include these aberrant structural features of compression wood. (Wide streaks of readily identifiable compression wood comprising the predominance of the annual rings in a piece of lumber, for example, are associated with more seriously adverse properties than narrow streaks involving only a few annual rings; particularly when the summerwood comprises only one-third or less of the ring widths in narrow streaks.)

The intrinsic variability of compression wood includes a wide range in physical characteristics from the borderline forms merging imperceptibly with the typical wood structure and related properties of the softwood species at one extreme and extending to obviously aberrant structure associated with highly adverse properties at the other extreme. In the interest of safety and satisfactory performance of ladder parts, competent and conscientious visual inspection is essential to assure that readily identifiable compression wood is present only within permissible limitations.

(10) *Low density*. Low density wood is that which is exceptionally light in weight and usually deficient in strength properties for the species. In softwood species, low density is frequently indicated by exceptionally wide or sometimes by extremely narrow annual rings, but invariably having meager portions

of summerwood. Low density in hardwoods, on the other hand, is most commonly associated with excessively narrow annual rings in which the springwood portion predominates.

3.3(88A)T.IV Materials.

3.3(1) Requirements for wood parts.

a. Requirements applicable to all wood parts.

(1) *General requirements*. All wood parts shall be of the species specified in Table 1; seasoned to a moisture content of not more than fifteen percent; smoothly machined and dressed on all sides; free from sharp edges and splinters; sound and free by accepted visual inspection from shake, wane, compression failures, decay, or other irregularities except as hereinafter provided. Low-density wood shall not be used. Where lumber dimensions are specified in these rules they shall be considered to be nominal dimensions and moisture content commonly used in the lumber industry.

(2) *Limited irregularities*. Black streaks in western hemlock shall not be considered an irregularity, except that chambers associated with black streaks, when present in the part, shall be limited as specified for pitch and bark pockets.

b. Permissible irregularities in side rails and back legs.

(1) *Cross grain*. The general slope of grain in side rails of minimum dimension shall not be steeper than one in twelve, except that for ladders under ten feet in length and having flat steps for treads, the general slope of grain shall not be steeper than one in ten. The slope of grain in areas of local grain deviation shall not be steeper than one in twelve or one in ten as specified above when occurring on the edges or in the outer one-fourth of the width of the wide face. Local areas of grain deviation within the center half of the width of the wide face may be permitted to contain grain slope as steep as one in eight. Local deviations of grain associated with otherwise permissible irregularities shall be permitted.

(2) *Knots*. Knots shall not appear in narrow faces of side rails. Knots, if tight and sound and less than $\frac{1}{2}$ inch in diameter, shall be permitted on the wide face provided they are at least $\frac{1}{2}$ inch back from either edge and not more frequent than one to any three feet of ladder length.

(3) *Pitch and bark pockets*. Pitch and bark pockets shall be permitted provided they are not more than $\frac{1}{8}$ inch in width, or more than two inches in length, or more than $\frac{1}{2}$ inch in depth, and then only if they are not more frequent than one to any three feet of ladder length.

(4) *Checks*. Checks shall be permitted on side rails provided they are not more than six inches in length or more than $\frac{1}{2}$ inch in depth.

(5) *Compression wood*. Occurrences of compression wood in relatively small amounts and positively identified by compe-

tent and conscientious visual inspection of side rails shall be permitted provided no single streak shall exceed 1/2 inch in width nor shall the aggregate of streaks exceed one-fourth of the face of the side rail. Borderline forms of compression wood not positively identified by competent and conscientious visual inspection shall be permitted. Ladder parts containing bow or crook which would interfere with the operation of the ladder shall not be used.

c. Permissible irregularities in flat steps, rungs, and cleats.

(1) *Cross grain in flat steps.* The general slope of grain in flat steps of minimum dimension shall not be steeper than one in twelve, except that for ladders under ten feet in length the slope of grain shall not be steeper than one in ten. The slope of grain in areas of local deviation shall not be steeper than one in twelve or one in ten as specified above. For all ladders, cross grain not steeper than one in ten may be permitted in lieu of one in twelve provided the size is increased to afford at least fifteen percent greater calculated strength than for ladders built to minimum dimensions. Local deviations of grain associated with otherwise permissible irregularities shall be permitted.

(2) *Cross grain in rungs and cleats.* The general slope of grain and that in areas of local deviations of grain shall not be steeper than one in fifteen in rungs and cleats. For all ladders cross grain not steeper than one in twelve may be permitted in lieu of one in fifteen, provided the size is increased to afford at least fifteen percent greater calculated strength than for ladders built to minimum dimensions. Local deviations of grain associated with otherwise permissible irregularities shall be permitted.

(3) *Knots.* Knots over 1/2 inch in diameter shall not appear in the narrow faces of flat steps and cleats. Knots appearing in the wide faces of flat steps and cleats shall not exceed a diameter of 1/4 inch.

3.3(2) Classification of species of wood. Table 1 gives a list of native woods, divided into four groups on the basis of mechanical properties considered from the standpoint of use for ladder construction.

a. Side rails and flat steps. All minimum dimensions and specifications set forth hereinafter for side rails and flat steps are based on the species of wood listed in Group 3 (Table 1) except where otherwise provided. The species of all other groups may be substituted for those of Group 3 when used in sizes that provide at least equivalent strength. (See Table 1 for suggested methods of size adjustment.)

b. Rungs and cleats. All minimum dimensions and specifications set forth hereinafter for rungs and cleats are based on the species of wood listed in Group 1 (Table 1). Cleats may be made of species of any other group provided that the cross-sectional dimensions specified for Group 1 species are in-

creased by the factors shown below (based on the percentages of Table 1) for the species group of which the cleats are to be made.

Factor for Increase in

Species Group	Each Dimension	Width Only (Thickness Unchanged)
1	1.00	1.00
2	1.03	1.05
3	1.11	1.19
4	1.17	1.26

3.3(3) Metal parts. All metal parts shall be made of aluminum, steel, wrought iron, malleable iron, or other material, adequate in strength for the purpose intended.

3.4(88A)T.IV Construction requirements.

3.4(1) Basis of requirements.

a. General. Dimensions specified hereinafter for wood ladders are the minimum dressed cross-sectional dimensions for the types of ladders herein designated, based on the species of wood specified in 3.3(2), at a moisture content of fifteen percent. The dimensions for side rails are based on a mortise or gain as specified for the various types of ladders for step or rung attachments. Where the strength of the side rails or back legs is reduced by a greater mortise or gain than shown, or where it is desired to use a cross section for any wood part either dimension of which is less than that specified, the required dimensions may be found as indicated in 3.4 (1) "b".

b. Formula.

(1) For the side rails of single, extension, and sectional ladders, the proposed section shall develop an actual stress per square inch not greater than 2150 pounds for Group 1 woods, 2000 pounds for Group 2 woods, 1600 pounds for Group 3 woods, or 1375 pounds for Group 4 woods when computed by the following formula applying to rectangular sections, with a maximum tolerance of five percent over these stresses:

$$S = \frac{3LD(P+W/16)}{2B(D^3-d^3)} = \frac{15LD(25+W/16)}{B(D^3-0.67)}$$

Eq 1

P=25 pounds, which is the normal component on each rail of a load of 200 pounds at the center of the ladder, equally distributed between the rails, when the foot of the ladder is moved out of the perpendicular by one-quarter of its length

S=stress in extreme fiber in pounds per square inch

W=weight of ladder in pounds (see Appendix)

L=maximum working length of ladder in inches

B=net thickness of each side rail in inches

D=depth of side rail in inches

d=diameter of hole bored for rung (d³ shall be taken as not less than 0.67)

(2) Adjustment of sizes for wood parts of stepladders and other ladder types covered by these rules may be made as follows:

The dimensions specified in later sections for parts having rectangular cross sections

generally represent only one of a number of possible combinations of thickness and width which could satisfy the requirements for strength and stiffness. Depending upon the material sizes available, manufacturing practices, and like factors, parts produced by a particular manufacturer may or may not agree exactly with the sizes given later. The following paragraphs provide means for determining equality of load-carrying capacity of parts of different sizes or of determining sizes needed to provide equality.

Any changes in demensions made in accordance with the following paragraphs shall result in a change in the width-thickness ratio for side rails of back legs not greater than twenty-five percent from the ratio for a corresponding ladder as now covered in these rules.

Where both dimensions are different from those specified, the load-carrying capacity in bending of a part will be equal to or greater than that of a part of specified dimensions if the ratio P_2/P_1 is not less than one, where

$$\frac{P_2}{P_1} = \frac{B_2 D_2^2}{B_1 D_1^2}$$

Eq 2

and

B =dimension of the part at right angles to the direction of load (width of a step, thickness of a side rail or back leg)

D =dimension of the part parallel to the direction of load (thickness of a step, width of a side rail or back leg)

B_1, D_1 =dimensions as specified

B_2, D_2 =dimensions of part being considered

The dimensions to be used in the computations are net dimensions. For example, in the case of a stepladder side rail, the dimension "B" is to be taken as the gross thickness of the rail minus the depth of the gain for the steps. Where there is a rung hole at the center of depth of a rail, a somewhat more accurate comparison may be made by the use of the formula

$$\frac{P_2}{P_1} = \frac{B_2 D_1 (D_2^3 - d^3)}{B_1 D_2 (D_1^3 - d^3)}$$

Eq 3

where the symbols have the same meanings as before and "d" is the diameter of the hole for the rung tenon. In most instances the difference in results calculated by this and by the earlier formula will be slight.

3.4(2) Portable stepladders. Stepladders longer than twenty feet shall not be supplied. Stepladders as hereinafter specified shall be of three types as follows:

Type I—Industrial stepladder, three to twenty feet for heavy duty, such as utilities, contractors, and industrial use.

Type II—Commercial stepladder, three to twelve feet for medium duty, such as painters, offices, and light industrial use.

Type III—Household stepladder, three to six feet for light duty, such as light household use.

a. General requirements.

(1) *Slope.* Slope is the inclination of side rails or back legs with respect to the vertical and is expressed as a deviation from the vertical per unit length of the member. Stepladders shall be so constructed that, when in the open position, the slope of the front section shall not be less than 3½ inches and the slope of the back section not less than two inches, for each twelve-inch length of side rail.

(2) *Step spacing.* A uniform step spacing shall be employed which shall be not more than twelve inches. Steps shall be parallel and level when the ladder is in position for use.

(3) *Width and spread.* The minimum width between side rails at the top, inside to inside, shall be not less than 11½ inches. From top to bottom, the side rails shall spread at least one inch for each foot of length of stepladder.

(4) *Step attachment.* When minimum thickness of side rails is used, steps shall be closely fitted into the grooves in the side rails ¼ inch in depth with a tolerance of ± 1/32 inch, and shall be firmly secured as hereinafter described; or they shall be closely fitted into metal brackets of an equivalent strength, which in turn shall be firmly secured to the side rails. The depth of groove herein provided may be increased in proportion to the thickness of side rails as provided in 3.4(2) ["b"(1)], 3.4(2) ["c"(1)], and 3.4(2) ["d"(1)].

(5) *Top.* All stepladders shall have a top with wood or metal brackets or fittings [see 3.3(3)] tightly secured to the top, side rails, and back legs, to allow free swinging of the back section without excessive play or wear at the joints.

(6) *Spreader.* A metal spreader or locking device of sufficient size and strength to securely hold the front and back sections in open position shall be a component of each stepladder. The spreader shall have all sharp points covered or removed to protect the user. For Type III ladder, the pail shelf and spreader may be combined in one unit (the so-called shelf-lock ladder).

(7) *Length tolerance.* When measured along the front edge of the side rails, all stepladders shall measure within three inches of the specified length.

(8) *Bucket shelves.* Where bucket shelves are provided, they shall be constructed to support a load of twenty-five pounds and shall be so fastened that they can be folded up when the ladder is closed.

(9) *Metal parts.* All metal parts and fittings [see 3.3(3)] shall be securely attached by means of rivets, bolts, screws, or equivalent fasteners.

b. Type I industrial stepladder.

(1) *Dimensions.* The minimum dimensions of the parts of the Type I stepladder shall be as shown in Table 2 when made of Group 2 or Group 3 woods.

The minimum thickness of side rails provides for the cutting of a groove of ¼ inch in depth with the tolerance indicated in 3.4 (2) "a" (4)

and shall be increased when grooves of greater depth are used.

(2) *Flat steps.* Steps shall be secured with at least two 6-d nails at each end, or the equivalent thereof. Each step shall be reinforced by a steel rod not less than 0.160 inch in diameter with standard commercial tolerances, which shall pass through metal washers of sufficient thickness and diameter on each end to prevent pressing into the side rails, and a truss block which shall be fitted between the rod and the center of each step; or by a metal angle brace on each end firmly secured to the steps and side rails; or by construction of equivalent strength and safety. Where the rod reinforcement construction is used, the bottom step shall be provided further with a metal angle brace on each end which shall be securely attached to the bottom step and side rails. In addition, all steps 3½ inches wide and twenty-seven inches or more in over-all length and all steps 4¼ inches wide and thirty-two inches or more in over-all length shall be provided with a metal angle brace at each end securely attached to the step and side rail.

(3) *Bracing of back section.* The back section shall be braced by one of the following methods:

The back legs shall be braced with 1½-inch diameter rungs of Group 1 woods (see Table 1), or material of equivalent strength, having ½-inch diameter tenons or oval wood rungs, or rectangular wood rungs of equivalent strength, spaced not more than twelve inches apart. The back legs shall be bored with holes either extending through the legs or to within ⅙ inch of the outside face of the legs, the size of the hole to be such as to insure a tight fit for the rung. The shoulder of the rung shall be forced firmly against the leg, and the tenon secured in place with a nail, or the equivalent thereof, to prevent turning of the rungs. The back legs shall be braced by a metal angle brace on each side, securely fastened to the rung and the back legs, one rung to be braced for each four feet of length or fraction thereof, on ladders four feet or more in length, with braces required only on the bottom rung for ladders that are four feet or shorter. Where rungs are more than twenty-eight inches in length between the back legs they shall be provided with center bearing consisting of a wood bar not less than ¾ by two inches in cross section securely nailed to each rung passing through it and long enough to include each rung longer than twenty-eight inches.

The back leg shall be braced with horizontal wood bars of Group 1, 2, or 3 woods (see Table 1) not less than ¾ by 2½ inches in cross section, spaced not more than twelve inches apart. The ends of the bars shall fit into metal sockets of not less than twenty-gauge (Manufacturers' Standard) steel, or other material of equivalent strength, or into mortises of not less than ¼ inch (tolerance of ± 1/32 inch) in depth in the back legs. A steel rod not less than 0.160 inch in diameter with standard commercial tolerance shall pass through the back legs, the bar,

and at each end through metal washers of sufficient diameter and thickness to prevent pressing into the back legs. The back legs shall also be braced by a metal angle brace on each side, securely fastened to the bar and to the legs, one bar to be so braced for at least each four feet of length or fraction thereof, with braces required only on bottom bar for ladders that are four feet or shorter. Metal sockets when used shall be attached to the back legs by rivets or by means of a rod running through the socket or equivalent thereof.

(4) *Antisplit devices.* The back legs shall be reinforced by a rivet through the depth of the leg above the hinge point, by metal plates or collars at the hinge point, or by other means suitable for preventing splitting of the back leg from the hinge pin to the top.

c. Type II commercial stepladder.

(1) *Dimensions.* The minimum dimensions of the parts of the Type II stepladder shall be as given in Table 3 when made of Group 2 or Group 3 woods.

The minimum thickness of side rails provides for the cutting of a groove of ¼ inch in depth with the tolerance indicated in 3.4 (2) ["a"(4)] and shall be increased when grooves of greater depth are used.

(2) *Flat steps.* Steps shall be secured with at least two 6-d nails at each end, or the equivalent thereof. Each step shall be reinforced by a steel rod not less than 0.160 inch in diameter with standard commercial tolerances which shall pass through metal washers of sufficient thickness and diameter on each end to prevent pressing into the side rails, and a truss block shall be fitted between the truss rod and the center of each step; or by a metal angle brace on each end firmly secured to the steps and side rails; or by construction of equivalent strength and safety. Where the rod reinforcement construction is used, the bottom step shall be provided further with a metal angle brace on each end which shall be securely attached to the bottom step and side rails.

(3) *Bracing.* The back legs shall be braced by one of the three following methods:

With ⅝-inch diameter wood dowels of Group 1 woods (see Table 1) or material of equivalent strength having not less than ⅝-inch tenons firmly secured in the back legs and spaced not more than twelve inches apart. The back legs shall be bored with holes either extending through the legs or to within 3/16 inches of the outside face of the legs, the size of the hole to be such as to insure a tight fit for the dowel. The shoulder of the dowel shall be forced firmly against the leg and the tenon secured in place with a nail, or the equivalent thereof, to prevent turning of the dowel.

A bar connecting two or more of the dowels shall be provided on all ladders of six feet or more. The cross-sectional dimensions of the bar shall be the same as the cross-sectional dimensions of the back legs, and the dowels shall pass through holes at the center line of the bar. The bar shall be attached at the center of the

length of the lower two dowels on a six-foot ladder and shall extend upward one dowel for each added two feet of length.

With wood dowels as set forth in subparagraph 3 above plus an inverted "V" bracing of $\frac{3}{4}$ - by $1\frac{1}{2}$ -inch material through which the dowels extend, the length of the "V" to extend $\frac{2}{3}$ of the way up the back.

With horizontal bracing of Group 1, 2, 3 or 4 woods (see Table 1) not less than $\frac{3}{4}$ by two inches in cross section, the ends of which shall fit into metal sockets of not less than twenty-gauge (Manufacturers' Standard) steel, or other material of equivalent strength, or into mortises not less than $\frac{1}{2}$ inch in depth in back legs. The bars shall be reinforced by steel rods not less than 0.160 inches in diameter with standard commercial tolerances which shall pass through the back legs, the bar, and, at each end, through metal washers of sufficient diameter and thickness to prevent pressing into the back legs. The spacing of such braces shall not exceed three feet, and there shall be one brace on three- and four-foot ladders, two braces on five- and six-foot ladders, three braces on seven- and eight-foot ladders, and four braces on ten- and twelve-foot ladders. The bottom bar shall not be more than eighteen inches from the bottom of the ladder, and, where only one bar is used, it shall be braced by a metal angle brace on each end securely attached to the bar and the back leg.

d. Type III household stepladder.

(1) *Dimensions.* The minimum dimensions of the parts of the Type III stepladder shall be as follows when made of Group 2 or Group 3 woods.

	Length 3 to 6 Feet	
	Thickness (Inch)	Depth (Inches)
Side Rails	$\frac{3}{4}$	2 $\frac{1}{2}$
Back Legs	$\frac{3}{4}$	1 5/16
Steps	$\frac{3}{4}$	3
Top	$\frac{3}{4}$	5

The minimum thicknesses of side rails provide for the cutting of a groove $\frac{1}{8}$ inch in depth with the tolerance indicated in 3.4(2) ["a"(4)] and shall be increased when grooves of greater depth are used.

(2) *Flat steps.* Steps shall be secured with at least one 6-d nail at each end, or the equivalent thereof. Each step shall be reinforced by a steel rod not less than 0.160 inch in diameter with standard commercial tolerance which shall pass through metal washers of sufficient thickness and diameter to prevent pressing into the side rails, or by a metal brace at each end firmly secured to steps and side rails; or by construction of equivalent strength and safety. Where the rod reinforcement construction is used, the bottom step shall be provided further with a metal angle brace on each end which shall be securely attached to the bottom step and side rail.

(3) *Bracing.* Back legs shall be braced by one of the two following methods or by construction of equivalent strength and safety.

By diagonal slats of Group 1, 2, 3, or 4 woods (see Table 1) not less than $\frac{5}{16}$ by $1\frac{1}{4}$ inches securely fastened to the back legs by nails, screws, or the equivalent thereof.

With horizontal bracing of Group 1, 2, 3, or 4 woods (see Table 1) not less than $\frac{5}{8}$ by $1\frac{1}{2}$ inches in cross section, the ends of which shall fit into metal sockets of not less than 20-gauge (Manufacturers' Standard) steel or other material of equivalent strength or into mortises not less than $\frac{1}{2}$ inch in depth in back legs. The bars shall be reinforced by steel rods not less than 0.160 inch in diameter with standard commercial tolerances which shall pass through the back leg, the bar, and at each end through metal washers of sufficient diameter and thickness to prevent pressing into each leg. The spacing of such bars shall not exceed three feet, and there shall be one brace on three- and four-foot ladders, two braces on five- and six-foot ladders. The bottom bar shall be not more than eighteen inches from the bottom of the ladder.

3.4(3) Portable rung ladders. Portable rung ladders as herein specified shall be of four types, as follows: Single ladder; two-section extension ladder; sectional ladder; trestle and extension trestle ladder.

a. General requirements.

(1) *Base.* The base or lower portion of a ladder may have either parallel sides or flared sides in accordance with commercial practice.

(2) *Rung spacing.* Rungs shall be parallel, level, and uniformly spaced. The spacing shall be not more than twelve inches, except as hereinafter specified.

(3) *Rung joint.* All holes for wood rungs shall either extend through the side rails or be bored so as to give at least a $\frac{13}{16}$ -inch length of bearing to the rung tenon. In through-bored construction, the rungs shall extend at least flush with the outside rail surface. All holes shall be located on the center line of the wide face of the side rails and shall be of such size as to insure a tight fit for the rung. The shoulder of the rung shall be forced firmly against the side rails and the tenon secured in place with a nail or the equivalent thereof, for the sole purpose of preventing the turning of the rung and maintaining the rung position in the side rail.

(4) *Rung dimensions.* Round rungs shall be of Group 1 woods (see Table 1), shall be not less than $1\frac{1}{2}$ inches in diameter for lengths up to thirty-six inches between side rails and $1\frac{1}{4}$ inches in diameter for lengths over thirty-six up to and including seventy-two inches, and shall have not less than $\frac{3}{8}$ -inch-diameter tenons, or rungs of equivalent strength and bearing shall be provided. When rungs are twenty-eight inches or more in length between side rails, they shall, in addition, be provided with center bearing.

(5) *Oval rungs.* Oval rungs or rungs of any other cross section may be used provided they are secured by a nail at each end or the equivalent thereof, and have at least

the same strength and bearing as round rungs of the same length.

(6) *Metal parts.* All metal parts and fittings [see 3.3(3)] shall be securely attached by means of rivets, bolts, screws, or equivalent fasteners.

(7) *Movable parts.* The construction and assembly of the movable parts shall be such that they shall operate freely and securely without binding or unnecessary play.

(8) *Length tolerance.* When measured along the side rails, no rung ladder or section thereof shall be more than four inches shorter than the specified length.

(9) *Nonslip bases.* Nonslip bases where required [see 3.5(2)“t”] shall be securely bolted, riveted or attached by equivalent construction to the side rails.

(10) *Hooks.* Hooks shall be securely bolted or riveted to the side rails or equivalent construction, and shall be of such dimensions as to withstand the loads imposed upon them.

b. Single ladder.

(1) *Length.* Single ladders longer than thirty feet shall not be supplied.

(2) *Dimensions.* The minimum dimensions of the side rails of the single ladder shall be as follows when made of Group 2 or Group 3 woods:

Length of Ladder (Feet)	Thickness (Inches)	Depth (Inches)
Up to and including 16	1½	2½
Over 16 up to and including 22	1¾	2¾
Over 22 up to and including 30	1¾	3

(3) *Reinforced rails.* Smaller side rails will be acceptable in all ladders of this type when reinforced by a steel wire, rod, or strap running the length of the side rails and adequately secured thereto. Where such reinforcement is used, the reinforced rails shall be equivalent in strength to the side rails specified in 3.4(3)[b, (2)].

(4) *Width.* The width between the side rails at the base, inside to inside, shall be at least 11½ inches for all ladders up to and including ten feet. Such minimum widths shall be increased at least ¼ inch for each additional two feet of length.

c. Two-section ladder.

(1) *Length.* Two-section extension ladders longer than sixty feet shall not be supplied. All ladders of this type shall consist of two sections, one to fit within the side rails of the other, and arranged in such a manner that the upper section can be raised and lowered.

(2) *Dimensions.* The minimum dimensions of the side rails of the two-section extension ladder shall be not less than specified in Table 4.

(3) *Overlap.* The minimum dimensions of side rails set forth in Table 4 are based on the maximum working length, which is the size of ladder less the minimum overlap, which shall be as follows:

Size of Ladder (Feet)	Overlap (Feet)
Up to and including 36	3
Over 36 up to and including 48	4
Over 48 up to and including 60	5

(4) *Reinforced rails.* Smaller side rails will be acceptable in all ladders of this type when reinforced by a steel wire, rod, or strap running the length of the side rails and adequately secured thereto. Where such reinforcement is used, the reinforced rails shall be equivalent in strength to the side rails specified in Table 4.

(5) *Width.* The minimum distance between the side rails of the bottom section, inside to inside, shall be 14½ inches on ladders up to and including twenty-eight feet; sixteen inches on all ladders over twenty-eight feet up to and including forty feet; eighteen inches on all ladders over forty feet.

(6) *Hardware.* All locks and guide irons shall be of metal [see 3.3(3)] and shall be of such construction and strength as to develop the full strength of the side rails. All locks shall be positive in their action. The guide irons shall be securely attached and so placed as to prevent the upper section from tipping or falling out while raising, lowering, or in use.

(7) *Rope and pulley.* Ladders of this type may be equipped with a rope and pulley, which shall be securely attached to the ladder in such manner as not to weaken either the rungs or the side rails. The pulley shall be not less than 1¼ inches in diameter.

The rope used with the pulley shall be not less than 5/16 inch in diameter having a minimum breaking strength of 560 pounds, and shall be of sufficient length for the purpose intended.

d. Sectional ladder.

(1) *Length.* Assembled combinations of sectional ladders longer than thirty-one feet shall not be supplied.

(2) *Dimensions.* The minimum dimensions of side rails shall be as follows for Group 2 or Group 3 woods:

Assembled Length of Ladder (Feet)	Thickness (Inches)	Depth (Inches)
Up to and including 21	1½	2¾
Over 21 up to and including 31	1¾	3¾

(3) *Width.* Ladders of this type shall have either straight sides slightly converging toward the top of each section, or shall have flaring sides at the bottom of the first (or bottom) section, with the top section having converging side rails to a width that shall be not less than four inches. Except for the top section, the minimum width between side rails shall be eleven inches.

(4) *Connecting joint.* Adjacent sections shall be joined by means of a groove in the bottom end of each rail of the upper of the two sections setting firmly over extensions, outside the side rails, of the topmost rung of

the next lower section and, at the same time, a groove in the top end of each rail of the lower of the two sections setting firmly over the bottom rung, inside the side rails, of the section next above.

The distance between the two rungs (top-most rung of one section, bottom rung of the section next above) mentioned in the first paragraph above shall not be less than one foot.

The fit between rail grooves and rungs mentioned in the first paragraph above shall be such as to provide a good fit without binding or unnecessary play.

The grooved ends of the sections shall be reinforced with a metal plate [see 3.3(3)] of not less than 18-gauge (Manufacturers' Standard) material properly secured thereto, and a rivet adjacent to the groove, extending through the depth of the rail, or the equivalent thereof.

e. Trestle and extension trestle ladder.

(1) *Length.* Trestle ladders, or extension sections or base sections of extension trestle ladders longer than twenty feet shall not be supplied.

(2) *Dimensions.* The minimum dimensions of the side rails of the trestle ladder, or the base sections of the extension trestle ladder, shall be as follows for Group 2 or Group 3 woods.

Size of Ladder (Feet)	Thickness (Inches)	Depth (Inches)
Up to and including 16	1 5/16	2¾
Over 16 up to and including 20	1 5/16	3

The minimum dimensions of the side rails of the extension section of the extension trestle ladder, which shall have parallel sides, shall be as follows for Group 2 or Group 3 woods.

Size of Ladder (Feet)	Thickness (Inches)	Depth (Inches)
Up to and including 12	1 5/16	2¾
Over 12 up to and including 16	1 5/16	2¾
Over 16 up to and including 20	1 5/16	2¾

(3) *Slope.* Trestle ladders and base sections of extension trestle ladders shall be so spread that when in an open position the spread of the trestle at the bottom, inside to inside, shall be at least 5½ inches per foot of the length of the ladder.

(4) *Width.* The width between the side rails at the base of the trestle ladder and base sections of the extension trestle ladder shall be at least twenty-one inches for all ladders and sections up to and including six feet. Longer lengths shall be increased at least one inch for each additional foot of length. The width between the side rails of the extension sections of the trestle ladder shall be not less than twelve inches.

(5) *Hinge joint.* The tops of the side rails of the trestle ladder and of the base section of the extension trestle ladder shall be

beveled, or equivalent construction, and shall be provided further with a metal [see 3.3(3)] hinge to prevent spreading.

(6) *Spreader.* A metal spreader or locking device [see 3.3(3)] to hold the front and back sections in an open position, and to hold the extension section securely in the elevated position, shall be a component of all extension trestle ladders and all trestle ladders over twelve feet in length.

(7) *Rung spacing.* Rungs shall be parallel and level. On the trestle ladder, or on the base sections of the extension trestle ladder, rungs shall be spaced not less than eight inches or more than eighteen inches apart; on the extension section of the extension trestle ladder, rungs shall be spaced not less than six inches or more than twelve inches apart.

3.4(4) Special-purpose ladders. All special-purpose ladders shall comply with the appropriate requirements of 3.4(1), 3.4(2), and 3.4(3) except as hereinafter modified in this section.

a. Platform stepladder. A platform stepladder is a modification of a portable stepladder with a working platform provided near the top.

(1) Platform stepladders shall be made in accordance with the requirements for Type I stepladders [see 3.4(2)"b"] or in accordance with the requirements for Type II stepladders [see 3.4(2)"c"].

(2) The slope of the back section shall be such that a vertical from the back edge of the platform will strike the floor at a distance, measured toward the front section, of not less than three inches from the base of the back section.

(3) The minimum width between side rails at the platform shall be not less than fifteen inches.

(4) The back legs and side rails shall extend at least twenty-four inches above the platform and shall be connected with a top member to form a three-sided rail, or equivalent construction shall be provided.

(5) Platforms shall be so constructed as to be capable of supporting a load of 200 pounds placed at any point on the platform.

(6) A separate spreader may be omitted from platform ladders in which the height to the platform is six feet or less. If the spreader is omitted, the platform shall be so designed as to function as a spreader or locking device to hold the front and back sections securely in an open position, with the connection between side rails and back legs being through the metal parts of the platform. The wood parts of a combined wood and metal platform functioning as a spreader shall not be depended upon to contribute to the spreading or locking action.

b. Painter's stepladder.

(1) In accordance with this section, painter's stepladders longer than twelve feet shall not be supplied.

(2) Painter's stepladders shall be made in accordance with the requirements of

Type II stepladders [see 3.4(2)“c”] except for the following:

The top may be omitted.

A rope spreader may be substituted for the metal spreader required in 3.4(2)[a (6)]. The rope shall not be less than No. 6 sash cord or its equivalent.

c. Other types of special ladders. Other types of special ladders such as three-section extension ladders, fruit-picker's ladders, combination step and extension ladders, stock-room stepladders, aisle-way stepladders, shelf ladders, job-made ladders, and library ladders are not specifically covered by these rules.

3.4(5) Trolley and side-rolling ladders.

a. Length. Trolley ladders and side-rolling ladders longer than twenty feet should not be supplied.

b. Dimensions. The dimensions of side rails shall not be less than the following for Group 2 or Group 3 woods:

Length of Side Rails (Feet)	Thickness (Inch)	Depth (Inches)
Up to and including 10	25/32	3
Over 10 up to and including 20	25/32	3¼

The minimum thicknesses of side rails provide for the cutting of a groove not over ¼ inch in depth and shall be increased when grooves of greater depth are used.

Flat steps shall have the following minimum dimensions for Group 2 or Group 3 woods:

Length of Step (Inches)	Thickness (Inch)	Width (Inches)
Up to and including 16	25/32	3
Over 16 up to and including 20	25/32	3¼
Over 20 up to and including 24	25/32	3½
Over 24 up to and including 28	25/32	4

c. Width. The width between the side rails, inside to inside, shall be at least twelve inches.

d. Step attachment. Flat steps shall be inset in the side rails ¼ inch and secured with at least two 6-d nails at each end or the equivalent thereof. They shall be reinforced with angle braces or a 3/16-inch steel rod.

e. Locking device. Locking devices should be provided on all trolley ladders.

f. Tracks. Tracks shall be wood, or metal (excluding cast iron), or a combination of these materials.

Tracks for the top end of ladders shall be fastened securely and shall be so constructed that the wheels will not jump the track. Tracks shall be so designed as to provide for all probable loads to which they will be subjected.

The supports shall be securely fastened by lag screws, machine, hook, or toggle bolts, or their equivalent.

Track for side-rolling ladders shall be supported by metal or wood brackets securely screwed or bolted to shelving or other permanent structure at not over three feet.

g. Wheel carriages. Wheel carriages shall be so designed as to provide for all loads to which they will be subjected. Two-point suspension should be used.

The wheel carriage for the top end of the ladder shall be securely fastened to the top of the ladder with metal brackets bolted either to the side rails or to the top step. When bolted to the top step, this step shall be secured to the side rails with metal braces in addition to those otherwise provided. The wheel carriage shall be so designed that a loose or broken wheel will not allow the ladder to drop or become detached from the track.

The wheel carriage for the bottom end of the ladder shall be securely fastened to the bottom of the ladder.

The wheels at the upper end of the ladder shall have minimum wheel base of eight inches.

When wheels are used at the bottom of the ladder, there shall be at least one wheel supporting each side rail.

Running gear for bottoms of both trolley and side-rolling ladders shall be so designed and constructed as to provide for any load to which they will be subjected.

3.5(88A) T.IV Care and use of ladders.

3.5(1) Care.

a. Ladders shall be maintained in good condition at all times, the joint between the steps and side rails shall be tight, all hardware and fittings securely attached, and the movable parts shall operate freely without binding or undue play.

b. Metal bearings of locks, wheels, and pulleys shall be frequently lubricated.

c. Frayed or badly worn rope shall be replaced.

d. Safety feet and other auxiliary equipment shall be kept in good condition to insure proper performance.

e. Ladders should be stored in such a manner as to provide ease of access or inspection, and to prevent danger of accident when withdrawing a ladder for use.

f. Wood ladders, when not in use, should be stored at a location where they will not be exposed to the elements, but where there is good ventilation. They shall not be stored near radiators, stoves, steam pipes, or other places subjected to excessive heat or dampness.

g. Ladders stored in a horizontal position should be supported at a sufficient number of points to avoid sagging and permanent set.

h. Ladders carried on vehicles should be adequately supported to avoid sagging and securely fastened in position to minimize chaffing and the effects of road shocks.

i. Ladders should be kept coated with a suitable transparent protective material.

j. Ladders shall be inspected frequently and those which have developed defects shall be withdrawn from service for repair or destruction and tagged or marked as “Dangerous, Do Not Use.”

k. Rungs shall be kept free of excessive grease and oil.

3.5(2) Use.

a. Portable rung and cleat ladders shall, where possible, be used at such a pitch that the horizontal distance from the top support to the foot of the ladder is one-quarter of the working length of the ladder (the length along the ladder between the foot and the top support). The ladder shall be so placed as to prevent slipping, or it shall be lashed, or held in position. Ladders shall not be used in a horizontal position as platforms, runways, or scaffolds.

b. Ladders for which dimensions are specified herein should not be used by more than one man at a time nor with ladder jacks and scaffold planks where use by more than one man is anticipated. In such cases, specially designed ladders with larger dimensions of the parts should be procured.

c. Portable ladders shall be so placed that the side rails have a secure footing. The top rest for portable rung and cleat ladders shall be reasonably rigid and shall have ample strength to support the applied load.

d. Ladders shall not be placed in front of doors opening toward the ladder unless the door is blocked open, locked, or guarded.

e. Ladders shall not be placed on boxes, barrels, or other unstable bases to obtain additional height.

f. To support the top of a ladder at a window opening, a board should be attached across the back of the ladder, extending across the window and providing firm support against the building walls or window frames.

g. When ascending or descending, the user should face the ladder.

h. Ladders with broken or missing steps, rung, or cleats, broken side rails, or other faulty equipment shall not be used. Improvised repairs shall not be made.

i. Short ladders shall not be spliced together to provide long sections.

j. Ladders made by fastening cleats across a single rail shall not be used.

k. In building construction, where warranted by height of operations or traffic conditions, separate ladders shall be designated for ascent or descent.

l. Ladders shall not be used as guys, braces, or skids, or for other than their intended purposes.

m. Tops of the ordinary types of step-ladders shall not be used as steps.

n. On two-section extension ladders the minimum overlap for the two sections in use shall be as follows:

Size of Ladder (Feet)	Overlap (Feet)
Up to and including 36	3
Over 36 up to and including 48	4
Over 48 up to and including 60	5

o. Portable rung ladders with reinforced rails as described in 3.4(3)[b (3)] and 3.4(3) [c (4)] shall be used only with the metal reinforcement on the under side. Ladders of this type shall not be used near exposed electrical conductors, since the reinforcing itself is a good conductor.

p. No ladder should be used to gain access to a roof unless the top of the ladder shall extend at least three feet above the point of support, at eave, gutter, or roof line.

q. Adjustment of extension ladders should only be made by the user when standing at the base of the ladder, so that the user may observe when the locks are properly engaged. Adjustment of extension ladders from the top of the ladder (or any level over the locking device) is a dangerous practice and should not be attempted. Adjustment should not be made while the user is standing on the ladder.

r. Middle and top sections of sectional or window cleaners ladders should not be used for bottom section unless the user equips them with safety shoes.

s. Extension ladders should always be erected so that the upper section is resting on the bottom section.

t. All portable rung ladders shall be equipped with nonslip bases unless other provisions have been provided to prevent slipping on the surface on which the ladder stands. Nonslip bases are not intended as a substitute for care in safety placing, lashing, or holding a ladder that is being used upon oily metal, concrete, or slippery surfaces.

u. The bracing on the back legs of step-ladders is designed solely for increasing stability and not for climbing.

v. When service conditions warrant, hooks may be attached at or near the top of portable ladders to give added security.

Table 1

Classification of Various Species of Wood Acceptable for Use in Ladders

The species are listed alphabetically within each group. The position of any species within a group therefore bears no relation to its strength or acceptability.

Where ladders are desired for use under conditions favorable to decay, it is recommended that the heartwood of decay-resistant species be used, or that the wood be given a treatment with a wood preservative. The species having the most durable heartwood are marked with an asterisk (*), and these should be preferred where resistance to decay is required.

Group 1

The allowable fiber stress in bending for the species listed herein when used for side rails shall not exceed 2150 pounds per square inch. These species may be substituted for Group 3

woods on the following basis: The dimensions may be not more than ten percent smaller for each cross-section dimension, or the thickness may remain unchanged, in which case the width may not be more than fifteen percent smaller if used edgewise (as in a rail) or twenty-five percent smaller if used flatwise (as in a tread).

White ash	<i>Fraxinus americana, pennsylvanica, quadrangulata</i>
Beech	<i>Fagus grandifolia</i>
Birch	<i>Betula lenta, alleghaniensis, nigra (2)</i>
Rock elm	<i>Ulmus thomasii</i>
Hickory	<i>Carya ovata, laciniosa, tomentosa, glabra</i>
Locust*	<i>Robinia pseudoacacia, Gleditsia triacanthos</i>
Hard maple	<i>Acer nigrum, saccharum</i>
Red maple	<i>Acer rubrum (3)</i>
Red oak	<i>Quercus velutina, marilandica, kelloggii, falcata var. pagodaefolia, laurifolia, ellipsoidalis, rubra, nuttallii, palustris, coccinea, shumardii, falcata, laevis, phellos</i>
White oak	<i>Quercus arizonica, douglasii, macrocarpa lobata, prinus, muehlenbergii, emoryi, gambelii, oblongifolia, virginiana, garryana, lyrata, stellata, michauxii, bicolor, alba</i>
Pecan	<i>Carya illinoensis, cordiformis, myristicaeformis (4), aquatica (4)</i>
Persimmon	<i>Diospyros virginiana</i>

Group 2

The allowable fiber stress in bending for the species listed herein when used for side rails shall not exceed 2000 pounds per square inch. These species may be substituted for Group 3 woods on the following basis. The dimensions may be not more than 7½ percent smaller for each cross-section dimension, or the thickness may remain unchanged, in which case the width may be not more than eleven percent smaller if used edgewise (as in a rail) or twenty percent smaller if used flatwise (as in a tread).

Douglas fir	
(Coast region)	<i>Pseudotsuga menziesii</i>
Western larch	<i>Larix occidentalis</i>
Southern yellow pine	<i>Pinus taeda, palustris, echinata, elliotii, rigida, virginiana</i>

Group 3

The allowable fiber stress in bending for the species listed herein when used for side rails shall not exceed 1600 pounds per square inch.

Red alder	<i>Alnus rubra, rhombifolia (2)</i>
Oregon ash	<i>Fraxinus latifolia</i>
Pumpkin ash	<i>Fraxinus profunda</i>
Alaska cedar*	<i>Chamaecyparis nootkatensis</i>
Port Orford cedar*	<i>Chamaecyparis lawsoniana</i>
Cucumber	<i>Magnolia acuminata</i>
Cypress*	<i>Taxodium distichum</i>
Soft elm	<i>Ulmus americana, rubra</i>
Douglas fir	
(Rocky Mountain type)	<i>Pseudotsuga menziesii var. glauca</i>
Noble fir	<i>Abies procera</i>
Gum	<i>Liquidambar styraciflua</i>
West Coast hemlock	<i>Tsuga heterophylla</i>
Magnolia	<i>Magnolia Grandiflora</i>
Oregon maple	<i>Acer macrophyllum</i>
Norway pine	<i>Pinus resinosa</i>
Poplar	<i>Liriodendron tulipifera</i>
Redwood*	<i>Sequoia sempervirens</i>
Eastern spruce	<i>Picea glauca, rubens</i>
Sitka spruce	<i>Picea sitchensis</i>
Sycamore	<i>Platanus occidentalis</i>
Tamarack	<i>Larix laricina</i>
Tupelo	<i>Nussa aquatica, sylvatica</i>

Group 4

The allowable fiber stress in bending for the species listed herein when used for side rails shall not exceed 1375 pounds per square inch. These species may be substituted for Group 3 woods on the following basis: The dimensions shall be at least five percent greater for each cross-section

dimension, or the thickness may remain unchanged, in which case the width shall be at least 7½ percent greater if used edgewise (as in a rail) or fifteen percent greater if used flatwise (as in a tread).

Aspen	<i>Populus tremuloides, grandidentata</i>
Basswood	<i>Tilia americana, heterophylla</i> (2)
Buckeye	<i>Aesculus octandra, glabra</i> (2)
Butternut	<i>Juglanscinerea</i>
Incense cedar*	<i>Libocedrus decurrens</i>
Western red cedar*	<i>Thuja plicata</i>
Cottonwood	<i>Populus balsamifera, deltoides, sargentii, heterophylla</i>
White fir	<i>Abies concolor, grandis, amabilis, lasiocarpa, magnifica</i>
Hackberry	<i>Celtis occidentalis laevigata</i> (2)
Eastern hemlock	<i>Tsuga canadensis</i>
Holly	<i>Ilex Opaca</i>
Soft maple	<i>Acer saccharinum</i>
Lodgepole pine	<i>Pinus contorta</i>
Idaho white pine.....	<i>Pinus monticola</i>
Northern white pine.....	<i>Pinus strobus</i>
Ponderosa pine	<i>Pinus Ponderosa, pinus jeffreyi</i> (Jeffrey pine)
Sugar pine	<i>Pinus lambertiana</i>
Engelmann spruce	<i>Picea engelmannii</i>

(Note 1: The common and scientific names of species used conform to the American Lumber Standards nomenclature and in most cases to U. S. Department of Agriculture Handbook No. 41, "Check List of Native and Naturalized Trees of the United States (including Alaska)," by Elbert L. Little. These publications can be obtained from the Superintendent of Documents, Washington, D. C. 20225.

Note 2: This species is commonly associated with others of the same genus under American Lumber Standards nomenclature, but no strength tests have been made on it at the Forest Products Laboratory.

Note 3: Included under soft maple in American Lumber Standards nomenclature.

Note 4: This species is not included under this common name in American Lumber Standards nomenclature, but strength data are available and it is accordingly included in this classification.)

Table 2
Dimensions for Type I Stepladder

	Length 12 Feet and Less		Length 14 and 16 Feet		Length 18 and 20 Feet	
	Thickness (Inches)	Depth (Inches)	Thickness (Inches)	Depth (Inches)	Thickness (Inches)	Depth (Inches)
Side Rails	25/32	3¼	25/32	3½	1 1/16	3½
Back Legs	25/32	2¾	25/32	2¾	1 1/16	2¾
Steps	25/32	3¾	25/32	4¼	25/32	4¼
Tops	25/32	5½	25/32	5½	25/32	5½

Table 3
Dimensions for Type II Stepladder

	Length 3 to 8 Feet		Length 10 Feet		Length 12 Feet	
	Thickness (Inch)	Depth (Inches)	Thickness (Inch)	Depth (Inches)	Thickness (Inch)	Depth (Inches)
Side Rails	¾	2¾	¾	2¾	¾	3
Back Legs	¾	1¾	¾	1¾	¾	2
Steps	¾	3½	¾	3½	¾	3½
Top	¾	5	¾	5	¾	5

Table 4
Dimensions of Side Rails for Two-Section Ladder

Size of Ladder Over-all Length (Feet)	Rail		
	Thickness (Inches)		Depth (Inches)
For Group 2 Woods			
16	1 1/16	X	2
20	1 1/16	X	2 1/4
24	1 1/16	X	2 1/2
28	1 1/16	X	2 3/4
32	1 1/8	X	2 3/4
36	1 5/16	X	2 3/4
40	1 5/16	X	2 3/4
44	1 5/16	X	3
For Group 3 Woods			
16	1 1/8	X	2
20	1 1/8	X	2 1/4
24	1 1/8	X	2 1/2
28	1 1/8	X	2 3/4
32	1 5/16	X	2 3/4
36	1 5/16	X	3
40	1 3/8	X	3
44	1 3/8	X	3 1/4
48-52	1 3/8	X	3 3/4
56-60	1 3/8	X	3 3/4

Note: See 3.2(1) "c" for size designation.

(This Appendix is not a part of the Iowa Employment Safety Rule for Portable Wood Ladders but is to be used for information purposes only.)

The use of the formula in 3.4(1)"b" involves the weight of the ladder involved in the calculation. For convenience in estimating ladder weights, the average densities of the species listed in Table 1 are given in Table A1 for a moisture content of fifteen percent. Involved also in the weight of an extension ladder are certain items of hardware such as locks, guide irons, and the bolts and rivets attaching these to the ladder. Other items of hardware which are attached at the ends of the ladder, such as safety feet and hooks, do not contribute to the bending of the ladder; their weight, therefore, need not be included. The practice among different manufacturers with respect to hardware varies considerably; no single value of hardware weight, therefore, can be given. For purposes of calculation, a weight in the range of four to eight pounds, with an average of about six pounds, may be used. Where it is known that specific items of hardware are to be used, so that their weights may be measured or estimated, the weights so determined should be used.

Table A1
Average Densities of Various Species of Wood for Use in Ladders

Group 1			
Species	Density (lbs./ft. ³)	Species	Density (lbs./ft. ³)
White ash	41	Hard maple	42
Beech	43	Red maple	36
Birch	44	Red oak	43
Rock elm	43	White oak	46
Hickory	50	Pecan	46
Locust	47	Persimmon	50
Group 2			
Douglas fir (Coast region)	34	Southern yellow pine	37
Western larch	38		

Group 3

Red alder	28	West Coast hemlock	30
Oregon ash	38	Magnolia	35
Pumpkin ash	37	Oregon maple	34
Alaska cedar	31	Norway pine	31
Port Orford cedar	30	Poplar	28
Cucumber	34	Redwood	25
Cypress	32	Eastern spruce	28
Soft elm	36	Sitka spruce	28
Douglas fir		Sycamore	35
(Rocky Mountain type)	30		
Noble fir	27	Tamarack	37
Gum	34	Tupelo	35

Group 4

Aspen	27	Eastern hemlock	28
Basswood	25	Holly	39
Buckeye	25	Soft maple	33
Butternut	27	Ledgepole pine	29
Incense cedar	25	Idaho white pine	28
Western red cedar	23	Northern white pine	25
Black cottonwood	24	Ponderosa pine	28
White fir	26	Sugar pine	26
Hackberry	37		

In order for an effective safety program to be developed, these rules should also serve as a basis for purchase requirements and for instruction in personnel training such as safety practices, manuals and posters.

[Filed December 23, 1969]

GENERAL DIVISION

TITLE IV

CHAPTER 4

HEAD, EYE, AND RESPIRATORY PROTECTION

4.1(88A)T.IV Purpose and scope.

4.1(1) *Purpose.* The purpose of these rules is to provide reasonable and adequate means, ways and methods for the proper selection and safe use of head, face, neck, eye, and respiratory protective equipment.

4.1(2) *Scope.* These rules will apply to all references made in Iowa employment safety commission rules pertaining to head, eye, and respiratory protection.

4.2(88A)T.IV General requirements—when head, eye, and respiratory devices are required.

4.2(1) Head, eye, and respiratory protection meeting the requirements of these rules shall be used in all instances when approved

b. Eye protection. Eye protection shall be worn by all workmen and all authorized persons frequenting areas where there is a reasonable hazard of damage to the eyes from:

Hazard Involved

Relatively large flying objects, such as rivets, nails, metal or rock chips, fragments from mushroomed tools

Dust and small flying particles

head, eye, and respiratory protection is required by the rules of the Iowa employment safety commission.

4.2(2) In such cases, employers shall make available protectors of a type suitable for the work to be performed, and employees shall wear such protectors.

4.2(3) Areas where protective equipment must be worn shall be the following:

a. Head protection. Head protection shall be worn by all workmen and all authorized persons frequenting areas where there is a reasonable hazard of injury from objects falling from overhead, or when in close proximity to electrical contact with exposed conductors of high voltage.

(1) Protective head gear shall meet the requirements for Class A or B hard hats as defined in this rule.

(2) Class B protective head gear shall be worn when in close proximity to electrical contact with exposed conductors of high voltage.

When Engaged in the Following Jobs

Chipping, finishing of iron and steel castings and forgings, lathe work, jobs using tools such as chisels, swages, flatters, fullers, jack hammers, rock drills, sledges
Scaling and grinding of metals, stone dressing, woodworking

Flying glass fragments

Dust, wind, and metal sparks

Splashing metal

Gases, fumes and smoke

Liquids

Reflected light and glare, welding flash

Injurious radiant energy when a moderate reduction of intensity of the visible radiant energy is desired

Injurious radiant energy when a large reduction of the visible radiant energy is desired

c. Respiratory protection. Respirators shall be worn where a process presents the hazard of exposure to harmful vapors, gases, dusts, mists or fumes if the contaminant level is equal to or above the Threshold Limit Values as set out in the Iowa employment safety commission's rules, general division, Title IV, Chapter 2. Where the process is enclosed or ventilated a supply of appropriate protectors or other equivalent safety measures shall be readily available for use in emergency.

4.2(4) Atmospheric contaminants shall be measured by the Threshold Limit Values as set out in the Iowa employment safety commission's rules, general division, Title IV, Chapter 2.

4.2(5) Protectors shall meet the following minimum requirements:

a. They shall provide adequate protection against the particular hazards for which they are designed.

b. They shall be reasonably comfortable when worn under the designated conditions.

c. They shall fit snugly and shall not unduly interfere with the movements of the wearer.

d. They shall be durable.

e. They shall be capable of being disinfected.

f. They shall be easily cleanable.

4.2(6) Workers whose vision requires the use of corrective lenses in spectacles and who are required by any rule to wear protective goggles shall wear protective equipment of one of the following types:

a. Spectacles whose protective lenses provide optical correction.

b. Goggles, protectors or shields that can be worn over corrective spectacles without disturbing the adjustment of the spectacles or

c. Goggles that incorporate corrective lenses mounted behind the protective lenses.

4.2(7) Every protector shall be distinctly marked to facilitate identification of the manufacturer.

4.2(8) When limitations or precautions are indicated by the manufacturer, they shall

Bottling and canning operations, cutting and grinding

Electric spot and butt welding where there is no exposure to radiant energy

Casting, tinning, babbiting, pouring lead joints

Handling of volatile and corrosive chemicals

Dipping in galvanizing, pickling and plating tanks, handling of corrosive acids, and solutions

Working near or adjacent to furnaces, welding operations

Oxycetylene, oxyhydrogen, or resistance welding and cutting, testing of lamps involving exposure to excessive brightness, tending electric, Bessemer, and other types of furnaces crucible steel making

Electric arc welding and cutting, irradiation with ultra-violet light, hydrogen welding

be transmitted to the user and care taken to see that such limitations and precautions are strictly observed.

4.3(88A) T.IV Exceptions.

4.3(1) Variations from the requirements of this rule may be granted by the Iowa employment safety commission only when it is demonstrated to the satisfaction of the commission that equivalent protection is afforded.

4.4(88A) T.IV Definitions.

4.4(1) General information.

a. Where the word "approved" is used with qualification, it refers to approval by the Iowa employment safety commission having jurisdiction over the specific requirement.

b. *Mandatory and advisory rules.* Mandatory requirements of these rules are characterized by the word "shall." If a rule is of an advisory nature, it is indicated by the word "should" or it is stated as a recommendation.

4.4(2) *Specific definitions.* As used in this rule, the following words shall have the indicated definitions, and all other words shall have meaning according to their common usage.

a. *Abrasive-blasting respirator.* See respirator.

b. *Absorptive lens.* A filter lens whose physical properties are designed to attenuate the effects of glare, reflective, and stray light. In this rule, it refers to shades 1.7 through 3.0 in the chart in Table 1.

c. *Aerodynamic diameter.* The diameter of a unit density sphere having the same settling velocity as the particle in question of whatever shape and density.

d. *Aerosol.* A suspension of fine, solid, or liquid particles in air as dust, fume, mist, smoke, or fog.

e. *Air-line respirator.* See respirator.

f. *Air-purifying respirator.* See respirator.

g. *Air-regulating valve.* An adjustable valve used to regulate airflow to the facepiece, helmet, or hood of an air-line respirator.

h. Air-supply device. A hand- or motor-operated blower for the hose mask, or a compressor or other source of respirable air for air-line and abrasive-blasting respirators.

i. Air-supply line. A hose to conduct respirable air from the air-supply device to that portion of a supplied-air respirator carried on the wearer's person.

j. Auxiliary magnifier or enlarger. A single lens or a pair of lenses joined together in a suitable manner to be inserted into the window in a welding helmet or hand shield to magnify or enlarge the area of the point of operation.

k. Available. Reasonably accessible (not intended to denote who pays for the protective device).

l. Breathing tube. A tube through which air or oxygen flows to the facepiece, helmet, or hood.

m. Bridge size. The distance between lenses on the nose side of each eye, expressed in millimeters.

n. Canister (air-purifying). A container filled with sorbents and catalysts that remove gases and vapors from air drawn through the unit. The canister may also contain an aerosol (particulate) filter to remove solid or liquid particulates.

o. Canister (oxygen-generating). A container filled with a chemical which generates oxygen by chemical reaction.

p. Cartridge. A small container filled with air-purifying media.

q. Cartridge-type respirator. See respirator.

r. Catalyst. In respirator use, a substance which converts a toxic gas (or vapor) into a less-toxic gas (or vapor).

s. Chemical-cartridge respirator. See respirator.

t. Contaminant. A harmful, irritating, or nuisance material that is foreign to the normal atmosphere.

u. Corrective lens. A lens ground to the wearer's individual corrective prescription.

v. Cover lens (cover circle). A removable disc of colorless glass, plastic-coated glass, or plastic that covers the filter lens and protects it from weld spatter, pitting, or scratching when used in a goggle.

w. Cover plate. A removable pane of colorless glass, plastic-coated glass, or plastic that covers the filter plate and protects it from weld spatter, pitting, or scratching when used in a helmet, hood, or goggle.

x. Crown (strap)s. As applied to protective hats and caps, it is that part of the suspension that supports the shell in proper position on the wearer's head and acts as a shock absorber when the shell is subjected to impact; as applied to helmets and face shields, it is that part of the suspension that supports the device in proper position in front of the wearer's face.

y. Demand respirator. See respirator.

z. Detachable coupling. A device by means of which the respirator wearer, without

using hand tools, may detach the air-supply line from that part of the respirator worn on the person or from the air-supply source.

aa. Disinfection. The act or process of destroying organisms that may cause disease and removal of pathogenic organisms, especially by means of chemical substances.

ab. Dispersoid. A colloidal or finely divided substance.

ac. Dust. A solid mechanically produced particle with sizes varying from sub-microscopic to visible or macroscopic.

ad. Eyepiece. A gastight, transparent window(s) in a full facepiece through which the wearer may see.

ae. Eye size. A measurement expressed in millimeters and denoting the size of the lens-holding section of an eye frame.

af. Exhalation valve. A device that allows exhaled air to leave a respirator and prevents outside air from entering through the valve.

ag. Face mask. A device worn in front of the eyes and a portion of or all of the face, whose predominant function is protection of the eyes and face.

ah. Facepiece. That portion of a respirator that covers the wearer's nose and mouth in a half-mask facepiece or nose, mouth, and eyes in a full facepiece. It is designed to make a gastight or dust-tight fit with the face and includes the headbands, exhalation valve(s), and connections for air-purifying device or respirable-gas source or both.

ai. Face shield. A device worn in front of the eyes and a portion of, or all of, the face, whose predominant function is protection of the eyes and face.

aj. Filter. A fibrous media (canned or uncanned) used in respirators to remove solid or liquid particles from the air stream entering the respirator enclosure.

ak. Filter lens (filter circle). A removable disc in the eyecup of a goggle that absorbs varying proportions of the ultraviolet, visible, and infrared rays according to the composition and density of the lens.

al. Filter plate. A removable pane in the window of a helmet, hood, or goggle that absorbs varying proportions of the ultraviolet, visible, and infrared rays according to the composition and density of the plate.

am. Filter respirator. See respirator.

an. Fog. A mist of sufficient concentration to perceptibly obscure vision.

ao. Full facepiece. A facepiece that covers the wearer's nose, mouth, eyes, and face and makes a gastight or dust-tight fit with his face. It includes eyepieces, the head harness, and breathing tube.

ap. Fume. A solid condensation particle of extremely small particle size, generally less than one micron in diameter.

aq. Gas. An aeriform fluid which is in the gaseous state at ordinary temperature and pressure.

ar. Gas mask. See respirator.

as. Goggle. A device, with contour-shaped eyecups or facial contact with glass or plastic lenses, worn over the eyes and held in place by a headband or other suitable means for the protection of the eyes and eye sockets.

at. Half-mask facepiece. A facepiece that covers the wearer's nose and mouth but not his eyes, and makes a gastight or dust-tight fit with his face; the headbands are included in the half-mask assembly.

au. Hand shield. A device, usually held in the hand or supported on the wearer's chest, designed to protect the eyes and face during welding operations.

av. Hat. A rigid device that is worn by the operator to provide protection to the head or portions thereof against impact, flying particles, or electric shock, or any combination thereof, and which is held in place by suitable means; brimless caps with peaks are included as hats.

aw. Headband. That part of the goggle, helmet, or hood suspension consisting of a supporting band that encircles the head.

ax. Headgear. That part of a protective helmet, hood, or face shield that supports the device on the wearer's head; it usually consists of headband and crown strap.

ay. Head harness. A device for holding the facepiece securely in place on the wearer's head.

az. Helmet. A device that shields the eyes, face, neck, and other parts of the head.

ba. Hood. A device that completely covers the head, neck, and portions of the shoulders.

bb. Hose mask with blower. See respirator.

bc. Hose mask without blower. See respirator.

bd. Infrared radiation. Electromagnetic energy with wavelengths from 770 to 12,000 millimicrons.

be. Inhalation valve. A device that allows respirable air to enter the facepiece and prevents exhaled air from leaving the facepiece through the intake opening.

bf. Interpupillary distance. The distance in millimeters between the centers of the pupils of the eyes.

bg. Irrespirable. Unfit for breathing.

bh. Lens. The transparent glass or plastic device through which the wearer of the protective goggles or spectacles sees.

bi. Lens, corrective. A lens ground to the wearer's individual corrective prescription.

bj. Lens, plano. A lens which does not incorporate correction.

bk. Lift front. A type of mounting frame for welding helmets, hoods, or goggles which is made of two connected parts; the front part, which can be removed from the line of vision, contains the high-density filter plate with its cover plate; and the back part, which is fixed to the helmet, contains a low-density or clear impact-resistant plate.

bl. Manufacturers' approval. Refers to the manufacturer of "Head, Eye, and Respira-

tory" equipment and designates the quality of material and workmanship necessary in the manufacture, assembly and fabrication of "Head, Eye, and Respiratory" equipment to comply with these rules.

bm. Millimicron. The thousandth part of a micron, or the millionth part of a millimeter. (Also known as a nanometer.)

bn. Mist. A liquid condensation particle with sizes ranging from submicroscopic to visible or macroscopic.

bo. Mounting plate or mounting frame. The device that holds the filter and cover plate in their proper place on the helmet.

bp. Nanometer. (See Millimicron.)

bq. Parallelism. The quality or state of being parallel (extending in the same direction everywhere equidistant and not meeting).

br. Particulate matter. A suspension of fine solid or liquid particles in air, such as dust, fog, fume, mist, smoke, or sprays. Particulate matter suspended in air is commonly known as aerosol.

bs. Pneumoconiosis-producing dust. Dust, which when inhaled, deposited, and retained in the lungs, may produce signs, symptoms and findings of pulmonary disease.

bt. Prefilter. A low-resistance filter pad placed in front of and in series with a regular dispersoid filter to lessen the dust load on the latter by removing the larger dispersoids from the air drawn through it.

bu. Protector. A device that provides face or eye protection against the hazards of processes encountered in employment, education, or in the natural environment.

bv. Radiant energy or radiation. The energy of electromagnetic waves produced by the movement of molecules excited by the heat of an electric arc, or gas flame, or the passage of an electric current. Three kinds of radiant energy are pertinent to this rule: (1) Ultraviolet, (2) visible light, and (3) infrared.

bw. Reasonable. Rational, just, fair-minded, proper, sensible, probable, sane, moderate.

bx. Resistance. Opposition to the flow of air, as through a canister, cartridge, particulate filter, or orifice.

by. Respirable. Fit to be breathed.

bz. Respirator. A device designed to protect the wearer from inhalation of harmful atmospheres.

(1) *Abrasive-blasting respirator.* A supplied-air respirator, similar in principle to the air-line respirator, providing respiratory protection against dust and protection for the head and neck of the wearer against impact and abrasion by rebounding material during abrasive blasting operations.

(2) *Air-line respirator.* A supplied-air respirator designed to be connected by a small-diameter hose to a supply of respirable air under positive pressure sufficient to deliver an adequate flow of air to a half-mask facepiece, full facepiece, helmet, or hood.

(3) *Air-purifying respirator.* Half-mask, full facepiece, or mouthpiece respirator

equipped with air-purifying units to remove gases, vapors, and particulate matter from the ambient air prior to its inhalation. Some air-purifying respirators are blower-operated and provide respirable air to the facepiece (or hood) under a slight positive pressure.

(4) *Chemical-cartridge respirator.* A nonemergency chemical-filter respirator usually having a half-mask facepiece and one or more cartridges to remove contaminants from the air drawn through them; it is designed for respiratory protection against low concentrations of gases and vapors or a combination of dispersoids, gases, and vapors.

(5) *Demand respirator.* An atmosphere-supplying respirator in which air or oxygen is admitted to the facepiece only when the wearer inhales, and in quantities governed automatically by his breathing.

(6) *Filter respirator.* A device designed for the wearer to inhale the surrounding atmosphere after it has passed through a filtering medium to remove contaminants. The filtering medium may chemically absorb or mechanically retain or obstruct the impurities.

(7) *Gas mask.* A filter respirator having a full facepiece, a canister containing the suitable granular material with or without dispersoid filter, and a canister-carrying harness, it is designed for respiratory protection against gases or vapors or a combination of dispersoids and gases and vapors.

(8) *Helmet respirator.* A rigid device that completely covers the head, neck, and portions of the shoulders of the wearer, and is provided with an air inlet and eyepiece.

(9) *Hood respirator.* A loose-fitting device that covers the head and neck of the wearer. It may be a nonrigid or a combination of a rigid head covering and nonrigid skirt for the head covering.

(10) *Hose mask with blower.* A supplied-air respirator having a full facepiece to which respirable air is forced through a large diameter hose by a hand-or motor-operated blower, and through which the wearer can inhale whether or not the blower is operated.

(11) *Hose mask without blower.* A supplied-air respirator having a full facepiece to which the supply of air is drawn from an inlet in respirable air through a large diameter hose by the wearer's breathing effort.

(12) *Self-contained breathing apparatus.* A respirator in which the supply of air, oxygen, or oxygen-generating material is carried by the wearer.

(13) *Supplied-air respirator.* A respirator that makes respirable air available to the wearer through a hose connected to a source of respirable air.

ca. Self-contained breathing apparatus. See respirator.

cb. Shield. A device to be held in the hand, or supported without the aid of the operator, whose predominant function is protection of the eyes and face.

cc. Side shield. A device of approved material fixed to the spectacle lens frame to protect the eye from side exposure.

cd. Slow-burning. See 4.6(2)"e"—flammability test.

ce. Snood. A flexible attachment to the back of a hood or helmet for protection against injury to the back of the head and neck.

cf. Sorbent. A material which removes toxic gases and vapors from air inhaled through a canister or cartridge.

cg. Spectacle. A device patterned after conventional-type spectacle eyewear but of more substantial construction, either with or without side shields, and with plano or corrective impact-resistant lenses of clear or absorptive filter glass or plastic.

ch. Spray. A liquid mechanically produced particle with sizes generally in the visible range.

ci. Supplied-air respirator. See respirator.

cj. Supplied-air suit. A one- or two-piece suit that is impermeable to most particulate and gaseous contaminants and is provided with an adequate supply of respirable air.

ck. Suspension. That part of a protective hat, cap, helmet, or face shield that supports the device on the wearer's head; it usually consists of headband and crown strap.

cl. Temple. That part of a spectacle or other protector extending to and dropping behind the ear of the wearer and intended to position the device before the eyes.

cm. Temple length. The measured length of a temple designated in inches (see Figs. 3 and 4).

cn. Timer. A device, operated by the wearer's respirations, that indicates the approximate length of time that a universal gas mask has been worn.

co. Toxic dust. Dust that may be harmful to the respiratory system or to other parts of the body through passing from the respiratory tract into the blood stream.

cp. Ultraviolet radiation. Electromagnetic energy with wavelengths from 50 to 390 millimicrons.

cq. Valve (air or oxygen). A device which controls the direction of air or oxygen flow or the rate and pressure at which air or oxygen is delivered, or both.

cr. Vapor. The gaseous state of a substance that is solid or liquid at ordinary temperature and pressure.

cs. Visible light. Electromagnetic energy having wavelengths within a range of 390 to 770 millimicrons.

ct. Window indicator. A colorimetric indicator for gas mask canisters which denotes the service life for a particular gas.

4.5(88A)T.IV Head protection.

4.5(1) Hats.

a. Types and classes. Protective caps and hats shall provide clearance between the wearer's head and the shell of not less than 1½ inches.

(1) Type 1—Hat, full brim.

(2) Type 2—Cap, brimless with peak (may have bill on the front).

(3) Class A—General service. Protection against impact and flying particles; limited dielectric strength.

(4) Class B—Utility service. Protection against impact and flying particles; high dielectric strength.

(5) Class C—Special service. Limited protection against impact; no dielectric strength (particular reference is made to metallic protective hats and caps).

(6) Class D—Fireman service. Protection against impact and flying particles; limited dielectric strength; Type 1 only.

b. Materials. Materials used in the construction of protective hat and cap shells shall be water resistant, acid resistant, and fire resistant, and nonconductors of electricity (except for Class C which possesses no dielectric strength). All materials coming in contact with the wearer's head shall be nonirritating. Class B hats shall contain no metal parts, either in the shell, suspension, or accessories.

c. General requirements. Each hat or cap shall consist essentially of a shell, a headband, and crown straps for support on the wearer's head. Provision shall be made for adequate ventilation.

(1) *Shell.* The shell shall be dome-shaped of one-piece seamless construction, with smooth, hard surfaces. Where reinforcing ribs are used, they shall be so designed as to deflect a falling object. For Class B hats, there shall be no holes in any part of the shell.

(2) *Headband.* Unless otherwise specified, the headband shall be genuine vegetable-tanned leather, full grain and soft, or an artificial equivalent. The headband should be smoothly finished on the surface that will contact the head.

(3) *Crown straps.* Crown straps shall be of closely woven webbing or suitable material with high tensile strength and a low total elongation.

(4) *Accessories.* Accessories shall be suitable for the intended purpose. All accessories shall be made of suitable materials and shall show good workmanship.

Chin strap. Unless otherwise specified, the chin strap shall be closely woven webbing, elastic cotton webbing combination, or the equivalent.

Winter liner. The winter liner, unless otherwise specified, shall consist of two layers of closely woven fabric; if colored, the fabric shall be fast dyed. The outer layer shall be water repellent and the inside layer a nonwater-repellent plain woven flannel with nap on the inside surface.

Lamp bracket. The lamp bracket shall be plastic or metal; if metal, it shall be insulated from the inside of the shell. The bracket shall be designed for proper beam angle when the hat is worn in the normal position.

Welding helmet combination. When used in conjunction with a cap, the welding helmet shall meet the requirements of 4.5(2).

Face shield. When worn in conjunction with a hat or cap, the face shield or eye shield shall meet the requirements of 4.5(3).

Hoods. Hoods shall meet the requirements of 4.5(1) ["d"(5)].

d. Detailed requirements.

(1) *Shell.* The Type 1 hat shall have a continuous brim as an integral extension of the dome; with the hat held in a horizontal position, the brim shall slope downward; the width of the brim shall be not less than 1¼ inches and not more than three inches measured from the inside edge of the shell, except for Class D shells. The Type 2 cap shell shall include a peak or brim extending forward from the crown not less than 1½ inches and shall be not less than 5½ inches in width. The Class B hat or cap shell shall contain no holes, either through the crown portion or the brim portion, for the support of the headgear or for any other purpose; no metal or electrical conducting material shall be permitted either inside or outside the shell for any purpose.

(2) *Headband.* The headband may be adjustable or nonadjustable. If adjustable, it shall cover the size range of commercial hat sizes 6% through 7%. If nonadjustable, it shall be furnished in the specified head size. The surface of the headband in contact with the wearer's head shall be not less than one inch in width. Any padding or stiffener strips used shall be secured to the leather or artificial leather of the headband. Headband assemblies intended for the use in Class B hats or caps shall contain no metal or electrical conducting material.

(3) *Crown straps.* Crown straps may be adjustable or nonadjustable. These straps when properly laced or assembled shall form a cradle for supporting the hat or cap on the wearer's head. The crown straps shall be designed to permit a clearance between the top of the wearer's head and the shell of not less than 1¼ inches. Crown-strap assemblies intended for use in Class B hats or caps shall contain no metal or electrical conducting material.

(4) *Accessories.*

Chin strap. The adjustable chin strap shall be made of not more than two pieces of webbing, leather, or elastic cotton webbing combination, or their equivalent, not less than ½ inch in width and not less than sixteen inches in length, excluding the attachments to the hat or cap. The means for adjusting the chin strap shall assure a secure hold of the hat or cap on the wearer's head and quick removal of the hat or cap by releasing the strap. The chin strap shall also be adjustable for wearing at the back of the head. The webbing shall have no frayed or loose edges that may unravel. Leather, if used in the chin strap, shall be of suitable thickness, full grained, and smoothly finished on the surface that will be in contact with the chin. All metal parts shall be free from sharp

or rough edges or projections. Rivet heads shall be smooth. Chin-strap assemblies intended for use in Class B hats or caps shall contain no metal or electrical conducting material.

Winter liner. The winter liner shall be designed to cover the skull, neck and ears, or the skull and ears only, as specified. The earlug and neck part may be made either in one piece with the skull cap or may be attachable to it. The neck and earlug parts shall be made to fit snugly by means of a chin strap. Winter liners intended for use with Class B hats or caps shall contain no metal or electrical conducting material.

Lamp bracket. The lamp bracket shall be so designed as to permit adequate illumination directly in front of the wearer when the hat is positioned properly on the head. Caps for specific use in the mining industry may have metal brackets in place of plastic ones, provided insulating rivets are used to assemble the bracket to the shell.

Face shield. Material for face shields or eye shields shall be in accordance with 4.5(3). The method of attachment to the hat or cap shall be such as to permit easy replacement. A firm, sure fit shall be assured to provide adequate protection. Metal or plastic frames shall be provided to hold the shield firmly to the hat or cap shell. Snap-on or riveted attachments are permitted, provided the shield is held securely. Attachments may be rigid or swiveled; see 4.5(3)[f (6)].

Welding helmet combination. The welding helmet shall be attached to the protective cap in such a manner as to permit easy removal, yet offer a firm, positive method of attachment. The attachment shall be such as to permit ready lifting and lowering of the helmet as described in 4.5(2) [d (1)].

(5) Hoods.

Acid type. Materials used in this application shall be rubber, synthetic rubber, or plastic. When worn in conjunction with a protective hat or cap, the method of attachment and the design shall be such as to permit ease in movement, adequate visibility, proper ventilation, comfort, and safety. The window shall be attached so as to provide adequate vision with the hat or cap at any angle.

Heat type. Hoods and masks are available for protection against various degrees of heat. The mask type consists of a plastic or wire-screen face shield which can be attached by means of a bracket to the brim of a hat or cap. This combination is used where the wearer may come in contact with infrequent splashes of hot materials. Spectacles are frequently worn under the wire-screen mask. The hood shall be made from material such as chrome, leather, asbestos, or flameproof duck. The design shall be similar to that of the acid-type hood and shall incorporate the same details as noted therein.

Abrasion type. Material used for this type of hood shall be heavy rubberized fabric, chrome, leather, or similar abrasive-resistant material. The design shall be similar to the

acid-type hood and shall incorporate the same details of construction.

e. Physical requirements and methods of test.

(1) *Preparation of samples.** All hats or caps shall be prepared in the following manner for the tests described in this section. Using No. 60 grit garnet paper, the entire exterior surface of the shell shall be abraded until the basic material is exposed. All samples shall then be conditioned in an oven for ninety-six hours at $50^{\circ} \pm 2^{\circ}\text{C}$., then cooled in a desiccator and exposed for ninety-six hours in an atmosphere having 50 percent \pm 2 percent relative humidity and a temperature of $25^{\circ} \pm 2^{\circ}\text{C}$.

(2) *Insulation resistance (Class A and Class D hats and caps)** When tested in accordance with the method specified in 4.5(1) ["e"(4)], Class A and Class D hats and caps shall withstand 2,200 volts, alternating current, sixty cycles per second (root-mean-square value) for one minute with leakage current not in excess of three milliamperes.

(3) *Insulation resistance (Class B hats or caps)** When tested in accordance with the method specified in 4.5(1) ["e"(4)], Class B hats or caps shall withstand 15,000 volts, alternating current, sixty cycles per second (root-mean-square value) for one minute with leakage current not in excess of eight milliamperes. Class B hats and caps when tested to breakdown shall not fail below 20,000 volts. Tests shall be made after first subjecting the hats or caps to the impact resistance test described in 4.5(1) ["e"(5)].

(4) *Electrical proof tests.** The inside of the hat or cap shell (without suspension or accessories) shall be filled with fresh tap water to within $\frac{1}{2}$ inch of the junction of the brim with the crown. If the shell contains holes in the crown near the brim, it shall be filled to within $\frac{1}{2}$ inch of the holes. The hat or cap shall then be submerged in the same type of water to the same level as that of the water inside. One terminal from the current source shall be in contact with the water inside the shell, and the other terminal in contact with the water outside the shell. The circuit shall be provided with a voltmeter of sufficient capacity, and a millimeter of sufficient capacity and accuracy, to measure the specified current. For Class A and D hats and caps, 2,200 volts shall be applied for one minute and current leakage, if any, noted. For Class B hats or caps, 15,000 volts shall be applied continuously for one minute and current leakage, if any, noted; voltage shall then be increased momentarily to 20,000 volts to determine whether breakdown of the shell occurs. Care should be taken to keep the unsubmerged portion of the shell dry so that flashover on application of voltage does not occur. Suitable precaution should be taken to prevent accidental contact by persons with any part of the high-voltage circuit.

(5) Impact resistance.*

Classes A, B, and D hats and caps. When mounted on the standard head form, as de-

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scribed in federal specification GGG-H-142, with a crown clearance of 1½ inches, the hat or cap shall not transmit an average force of more than 850 pounds from the impact of an eight-pound spherical steel ball approximately three and eight-tenths inches in diameter dropped onto the center of the crown from a height of five feet. The force transmitted shall be determined by mounting the standard head form on a Brinell hardness penetrator apparatus as described in federal specification GGG-H-142. See Fig. 5. The impression bar shall be of a metal having a predetermined Brinell hardness of 18-30 as measured with a 500-kilogram load and a 10-millimeter ball, in accordance with the manufacturing procedures of American Society for Testing Materials Specification E10-54T.

Class C hats and caps. Requirement and test shall be the same as specified in paragraph above except that the height of drop shall be three feet.

(6) *Penetration resistance.** Hats and caps of all classes shall be neither dented nor pierced for more than ¼ inch, nor shall the shell be pushed down so as to touch the standard head form, nor shall the crown straps pull out or break when mounted as specified in 4.5(1) ["e"(5)], par. 2, and subjected to a one-pound hardened steel plumb bob with a point having an included angle of thirty-six degrees dropped squarely onto the center of the crown from a height of ten feet.

(7) *Weight.** Except for Class D, the weight of each hat or cap shall not exceed fifteen ounces complete with suspension, but exclusive of winter liner or chin strap.

(8) *Flammability.** The thinnest section of the shell shall not burn at a rate greater than three inches per minute when tested by inserting one end of a 5-inch x ½-inch strip of the shell material in a blue-flame Bunsen burner. The strip of the shell material shall be inclined at forty-five degrees with the five-inch longitudinal axis horizontal. The burner flame shall be ¾ inch high. After thirty seconds, the burner shall be removed and the strip allowed to burn. Measurement of the rate of burning shall then be recorded.

(9) *Water absorption.** The shell material shall absorb not more than five percent by weight of water when subjected to the test specified in 4.6(2)"d".

(10) *Edge strength.** Hats and caps in Classes A, C, and D shall show a deflection under a forty-pound load of not more than ¾ inch and ultimate strength of not less than fifty pounds when the peak or front brim is clamped in the supported edge position to a T-jig, in accordance with federal specification GGG-H-142.

f. Selection of head-protective devices.

(1) *Class A.* Hats and caps under this classification are intended for protection against impact hazards encountered, for example, in mining, building construction, tunneling, timber work, and manufacturing. Dielectric strength is incorporated as an extra

safeguard for protection against voltages not exceeding 600 volts.

(2) *Class B.* This class covers safety hats and caps for protection of the wearer's head against electrical contact with exposed conductors of high voltage and against impact hazards.

(3) *Class C.* The safety hat or cap in this class is designed specifically for lightweight comfort with some impact protection. This class is usually manufactured from aluminum and offers no dielectric protection.

(4) *Class D.* The firemen's helmet covered under this classification is designed for a specific use where additional requirements are: Wide brim (to give protection to ears and neck); heavy construction (to provide high-impact resistance and bump protection, with good abrasion qualities); dielectric strength (for protection against voltages not exceeding 600 volts).

g. Marking. Each hat or cap shall be identified on the inside of the shell with the name of the manufacturer and class of protection. For Class B, the hats and caps shall also be marked to indicate that each has been tested to meet the voltage test and breakdown requirements. Each hat or cap shall be accompanied by instructions explaining the proper method of adjusting the suspension.

4.5(2) Helmets and hand shields.

a. Function. The devices described in this section are designed to provide protection for the eyes, face, ears, and neck against intense radiant energy. Typical operations which require helmets or hand shields include various kinds of arc welding, heavy gas cutting, and scarfing.

b. Types. The helmet and the hand shield are the only permissible types.

c. Styles. The helmet and the hand shield are made to the same basic design and of the same basic materials—an opaque, bowl-shaped, or modified bowl-shaped, device containing a window with filter plate which allows the wearer to see the radiant object, yet prevents harmful intensities of radiation from reaching his eyes. The helmet is supported on the head by an adjustable headgear, while the hand shield has a handle attached to the bottom by which it is held in the hand. The basic designs may be modified to provide protection against special hazards, but modified equipment shall meet the same requirements as the basic design.

d. Detailed requirements.

(1) *Rigid helmet.*

Helmet body. The helmet body shall be of such size and shape as to protect the face, forehead, ears, and neck to a vertical line back of the ears. It shall have an opening or openings in the front for filter plates or filter lenses. The helmet body shall be attached to the headgear in such a way that it will not come in contact with any part of the head and that it can be lifted up from in front of the face and hold its position in front of the head. The

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helmet body shall be made of vulcanized fiber, reinforced plastic, or other suitable material which shall be thermally insulating, noncombustible or slow burning; opaque to visible, ultraviolet and infrared radiations; and capable of withstanding disinfection. The inside of the helmet body shall have a low light-reflecting finish. Rivets or other metal parts, if terminating on the inside surface, shall be adequately separated from the wearer's head.

Weight. The helmet or hand shield, exclusive of filter or cover plates shall weigh not more than twenty-eight ounces (793 grams).

Headgear. The helmet shall have a headgear or cradle that shall hold the helmet body comfortably and firmly on the wearer's head, but shall permit the helmet body to be tilted back over the head. The headgear shall be readily adjustable, for all head sizes from $6\frac{1}{2}$ to 7 $\frac{1}{2}$, without the use of tools. The headgear shall be made of materials which are thermally insulating, noncombustible, or slow burning, resistant to heat, and capable of withstanding disinfection. Where required, the headgear shall be fitted with a removable and replaceable sweatband covering at least the forehead portion of the headband. The sweatband shall be made of leather or other suitable material which is slow burning, and nonirritating.

Headgear substitutes. The headgear may be replaced by an impact-resistant hat or cap, or other suitable device to which the helmet body is connected, provided that the helmet body can be lifted and adjusted to permit unobstructed vision or lowered to furnish complete protection, as required. The alternative device shall meet the requirements for disinfection and resistance to heat, and, in addition, shall meet the applicable requirements of any additional functions such as protection against falling objects as detailed under 4.5(1).

Filter and cover-plate mounting. The front of the helmet body shall be provided with a light-tight plate-mounting frame or frames made of metal, plastic, or other suitable material, which shall be attached securely to the body of the helmet or shall be an integral part of the helmet. The frame shall provide a window through which the welding or cutting operation may be seen by the wearer; the window shall be not less than $3\frac{1}{8}$ inches wide and 1 $\frac{1}{2}$ inches high, or equivalent in area and visual field. The frame shall permit the removal and replacement of filter and cover plates without the use of tools and without damage to the plates or frame. The mounting shall be so designed that the filter plate will be not less than two inches (50.8 mm) from the eyes of the wearer.

Filter plate—dimensions. The filter plate shall be of such dimensions as to fit suitably into the frame and to cover the window; the filter plate shall be not less than 0.080 inch (2 millimeters) nor more than 0.150 inch (3.8 millimeters) thick; shall measure not less than 2 inches \pm 0.03 inch wide by 4.25 inches \pm 0.03 inch long.

Optical qualities. Both surfaces of filter plates shall be well polished, and shall be free from striae, waves, or other defects which would impair their optical quality. Filter-plate surfaces shall be flat and substantially parallel; prismatic effects shall not exceed $\frac{1}{4}$ prism diopter (four minutes of angular deviation).

Transmittance. Filter plates shall conform with the radiant-energy transmittance requirements shown in Table 1 for shades 4.0 through 14.0.

Impact resistance. When specified, filter plates shall be impact resistant and withstand the following impact test: The filter plate shall be supported on a suitable rigid frame having internal dimensions of 1.77 inches (4.5 centimeters) by 4.02 inches (10.2 centimeters). A washer of neoprene rubber packing of 40 ± 5 durometer reading, not more than $\frac{1}{8}$ inch thick and of the same internal dimensions as the support, shall be placed between the plate and the support. A $\frac{3}{8}$ -inch (15.9 millimeter) steel ball, approximately 0.565 ounce (16 grains), shall be freely dropped from a height of thirty-nine inches (1 meter) onto the center of the horizontal outer surface of the plate. The plate shall not fracture from the impact of the steel ball.

Marking. All filter plates shall be marked with the shade designation and a permanent and legible marking by which the manufacturer may be readily identified. In addition, all glass filter plates, when treated for impact resistance, shall be marked with the letter "H".

Cover plate. Cover plates, made of plain glass, of glass coated on one or on both sides with plastic, or of a slow-burning solid plastic sheet shall be used to protect the filter plates from damage. The cover plates shall be the same peripheral size and shape as filter plates, and the thickness of cover plates shall not be less than 0.050 inches. They shall transmit not less than seventy-five percent of the luminous radiation and shall be substantially free from optical imperfections. Cover plates shall not be heat treated for impact resistance.

(2) **Hand shield.** Hand shields shall be constructed of materials similar to those used for the helmet and in like manner. The materials, lens-mounting arrangement, and filter and cover plates shall conform to the requirements for the corresponding parts of the helmet body with headgear. The handle shall be made of a material that is a nonconductor of electricity and is noncombustible or slow burning. It shall be of such size and shape as to be held easily by one hand and shall be firmly attached to the lower portion of the shield. Hand shields intended for use by others than welding operators shall have filter and cover plates suitable for the intended use.

(3) **Nonrigid helmet.*** Helmets may be made of nonrigid materials where they are to be used in confined spaces, or may be collapsible.

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sible for convenience in carrying or in storage. The helmets may be of the same general shape as the rigid helmet except that a more complete covering of the top of the head is necessary in order to maintain the face, side, and windows in proper position. The requirements for the filter plates, cover plates, and lens-mounting frame are the same as for the rigid helmet. A headgear may be used. The material shall be nonconducting and opaque to ultraviolet, visible, and infrared radiations. It shall withstand the test for resistance to flame described in Federal Test Methods Standard No. 406. Stitched seams shall be welted. No stitching shall be exposed.

(4) *Attachments and auxiliary equipment.*

Lift front. The lift front shall be fabricated from metal, plastic, or other suitable material. A snap hinge shall be provided so that the front part will stay up or down but will not remain in a partially opened position. The lift-front seal against the helmet shall be light tight. The left front shall be designed to accommodate three plates: A clear impact-resisting plate in the back or fixed part, a filter plate (impact-resisting when specified), and a cover plate in the front part. The back or fixed-part plate shall be clear heat-treated glass, or plastic, not more than $\frac{3}{16}$ inch thick and shall be capable of withstanding the impact tests specified in 4.5 ["d" (1)].

Chin rest. To avoid contact of the helmet with the face of the wearer, a chin rest may be provided. In lieu of a chin rest, an adjustable position stop may be provided to perform the same function. The chin rest shall be constructed of suitable, rigid material and shall be detachable from the body of the helmet or hand shield.

Snood. Snoods or back-of-head-and-neck protectors shall be of material that is flame resistant, that is a good insulator of heat and electricity, and that is capable of withstanding disinfection. Such devices shall be designed for easy attachment to the helmet, helmet headgear, or cradle.

Apron. Aprons or bibs for helmets shall be of nonflammable, nonconducting material that is flexible and capable of withstanding disinfection.

Auxiliary magnifier or enlarger. This may be made of glass or transparent plastic material of optical quality. If used, it shall be the same size as the filter plate.

Attachments. The characteristics and performance requirements herein provided for welding helmets shall in no way be altered through their attachment to protective hats and caps.

(5) *Special protective devices.* When respiratory protection is needed against airborne contaminants encountered during welding operations, the appropriate respiratory protective device shall be worn in conjunction with a helmet or hand shield.

(6) *Flammability.* The thinnest section of the rigid helmet or hand shield shall not

burn at a rate greater than three inches per minute when tested by inserting one end of a 5-inch x $\frac{1}{2}$ -inch strip of the helmet material in a blue-flame Bunsen burner. The strip shall be inclined at forty-five degrees with a five-inch longitudinal axis horizontal. The burner flame shall be $\frac{1}{2}$ inch high. After ten seconds, the burner shall be removed and the strip allowed to burn. Measurement of the rate of burning shall then be recorded.

e. Marking. Helmets, shields, and filter plates shall bear a permanent and distinctive marking by which the manufacturer may be readily identified. In addition, all filter plates shall be marked with the shade number; if made of heat-treated glass, they shall be marked with the letter "H".

4.5(3) *Face shields.*

a. Function. The devices described in this section are designed to provide protection to the face (i.e., the front part of the head including forehead, cheeks, nose, mouth, chin) and neck, where required, from flying particles and sprays of hazardous liquids and, in addition, to provide antiglare protection where required. Such devices should be worn over suitable basic eye protection devices.

b. Intended uses. Some typical uses for face shields include, but are not limited to, the following:

- (1) Woodworking operations where chips and particles fly;
- (2) Metal machining causing flying particles;
- (3) Buffing, polishing, wire brushing, and grinding operations where flying particles or objects may strike the face;
- (4) Spot welding;
- (5) Handling hot or corrosive materials.

c. Styles and types. Face shields shall comprise three basic styles: Headgear without crown protector; headgear with crown protector; headgear with crown protector and chin protector.

(1) *Window.* Each of these styles shall accommodate any of the following styles of windows: Clear transparent; colored transparent; wire screen; combination of plastic and wire screen; and fiber window with filter plate mounting.

d. Materials. Materials used in the manufacture of face shields shall combine mechanical strength and lightness of weight to a high degree, shall be nonirritating to the skin when subjected to perspiration, and shall be capable of withstanding frequent disinfection. Where metals are used, they shall be resistant to corrosion. Plastic materials shall be slow burning. Clear or colored materials used in windows shall be of an optical grade. Plastic windows shall not be used in connection with welding operations unless they meet the requirements of 4.6(3) ["d"(5)].

e. General requirements.

(1) *Assembly.* Face shields shall consist essentially of a detachable transparent plastic window, wire-screen window, or opaque

frame with window; a tilting support, and adjustable headgear, and, as required, a crown protector and chin protector.

(2) *Window shape.* The windows shall be designed to fit the contour of the window support.

(3) *Window support.* There shall be attached to the headgear a window-supporting or window-holding member which shall be a band or crown protector. The window support shall position the window in front of the face in such a manner as to provide clearance for the nose and eyeglasses of the wearer.

(4) *Window attachment.* The attachment of the window to the window support shall be such as to permit easy removal and replacement. The several sizes and types of windows for a particular face shield shall be interchangeable for attachment to the window support.

(5) *Headgear.* The headgear shall consist of at least a headband and a crown strap. The headgear shall be made from materials having low heat conductivity. The design shall be such as to hold the window and window support comfortably and firmly in place on the wearer's head, and shall provide for tilting the window away from the face.

(6) *Crown protector.* The crown protector shall be shaped to cover at least the frontal portion of the head and shall extend around each side at least to a vertical line at the front of the ears. It may be designed to be an integral part of the window support, or it may be a separate assembly. The design shall be such as to provide a comfortable clearance over the forehead and head of the wearer.

(7) *Chin protector.* The chin protector shall be shaped to cover at least the chin and upper part of the neck. The design shall be such as to provide a comfortable clearance under the chin of the wearer.

f. Detailed requirements.

(1) *Window dimensions.* Plastic or wire-screen windows without frames shall be not less than 9½ inches wide at the top and 8½ inches wide at the bottom, measured over their curved surfaces when attached and in position on the window support, and not less than six inches high. Windows, when used in frames, shall be not less than four inches wide and two inches high, and the frames shall conform to the dimensions specified for windows without frames. Plastic windows shall be not less than 0.040 inch nominal thickness.

(2) *Wire-screen window.* The exposed borders of wire-screen windows shall be suitably bound or otherwise finished in such a manner as to eliminate any sharp, rough or unfinished edges, using not less than 20-mesh screen.

(3) *Window support.* The window support shall be made of vulcanized fiber, plastic, or other suitable material. It shall be pivotally attached to the sides of the headgear to permit easy tilting, either upward or downward, of the supporting member and of the window attached thereto. The window shall

be capable of being tilted sufficiently upward so that the center of its bottom edge shall be out of the line of horizontal vision. The tension of the tilting mechanism shall be sufficient to hold the window without slippage in either the up or the down position.

(4) *Headgear.* The headgear shall be readily adjustable to head sizes 6½ to 7½ without the use of tools. Adjusting devices, if used, shall hold firmly in place after being so adjusted. The crown strap or band shall be attached to, and extend between, the front and rear centers or from the middle sides of the headband. It shall form an arc over the head to assist in positioning and holding the headgear in place. Adjusting devices, if used, shall be positive and shall hold firmly in place after being so adjusted. All mechanisms and movements shall be protected so that the wearer's hair cannot catch in the adjusting devices. If required, not less than the forehead portion of the headband shall be provided with a removable and replaceable cushioned sweatband that shall be nonirritating and nontoxic.

(5) *Crown protector and chin protector.* The crown protector and chin protector shall be made of vulcanized fiber, plastic, or other suitable material having an impact resistance not less than that of the plastic window. When the crown protector is used in conjunction with the chin protector for protection against sprays of hazardous liquids, the assembly of the crown protector and window support and the assembly of the chin protector and window shall be splash-proof, that is, shall not allow liquids to pass through any openings in the assembly and reach the face, forehead, or chin of the wearer.

(6) *Headgear substitutes.* For additional protection, the headgear may be replaced by an impact-resistant hat or cap or other suitable device to which the window support is connected. The attachment may be either rigid or swiveled. If swiveled, the design shall be such as to permit lifting and adjusting of the window to permit unobstructed vision or lowering to furnish protection, as required. The substitute device shall meet the requirements for low-heat conductivity and disinfection, and, in addition, shall meet the applicable requirements of any additional functions such as protection against falling objects, as detailed under 1.5(1).

g. *Marking.* Each headgear and each plastic window shall bear a permanent and legible marking by which the manufacturer may be readily identified. In addition, each window offered for protection against glare shall bear its shade designation.

Marking for special operating conditions. When face shields are to be used in atmospheres or working areas requiring special conditions of nonconductivity of nonsparking, then all materials used shall meet these requirements. Face shields shall be plainly and permanently labeled, identifying them as "nonconductive face shield" or "nonsparking face shield."

h. Physical requirements and methods of test.

(1) *Impact resistance, plastic-window face shield.** The face shield shall be mounted on a holder consisting of a standard wooden hat block, size seven, mounted vertically on a wooden support fastened securely to a base. The face shield shall be so mounted that the headband fits snugly around the periphery of the base of the block and the crown strap is in contact with the crown portion of the block. An additional supporting block, approximately one inch wide and curved to conform to the shape of the plastic window, shall be provided as a support for the window at its lower end or, if the face shield is provided with a chin rest, as a support under the chin rest. The face shield will then rest in a position such that the axis of the cylindrical window is horizontal and the outer surface of the window is uppermost. The impact test shall be made at room temperature (65°F. to 85°F.) under normal humidity conditions. A ½-inch-diameter steel ball, weighing approximately 1.56 ounces, shall be freely dropped from a height of fifty inches onto the apex of the window at a point approximately three inches below the point of attachment. The window shall not be fractured nor separated nor removed from any of its points of fastening to the headgear by the impact of the steel ball.

(2) *Penetration resistance, plastic-window face shield.** The face shield shall be mounted in the manner described in 4.5(3) ["*h*" (1)] and shall be tested under similar conditions. A pointed projectile of suitable size, consisting of a new Singer number 25, size 135 x 17 needle fastened into a holder, weighing approximately 1.56 ounces, shall be freely dropped, needle point downward from a height of fifty inches onto the apex of the window at a point approximately three inches below the point of attachment. The projectile may be guided, but not restricted, in its fall by dropping it through a tube extending to within approximately four inches of the face-shield window. The window shall not be fractured, pierced through, nor separated or removed from any of its points of fastening on the headgear by the impact of the projectile.

(3) *Visible transmittance, plastic windows.** The total visible (luminous) transmittance of clear or colored windows shall be determined by any standard method recognized as suitable by the National Bureau of Standards. A suggested method is described in 4.6(2) ["*d*"(5)], par. 3. Clear windows shall transmit not less than eighty-five percent of the incident visible radiation. Colored windows shall transmit as follows:

Shade	Percent Transmittance
Light	50 ± 7
Medium	23 ± 6
Dark	14 ± 6

(4) *Flammability, plastic windows.** The clear or colored plastic windows shall not

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burn at a rate greater than three inches per minute when tested by inserting one end of a 5-inch x ½-inch strip of material in a blue-flame Bunsen burner. The strip shall be inclined at forty-five degrees with the five-inch longitudinal axis horizontal. The burner flame shall be ½ inch high. After ten seconds, the burner shall be removed from the strip and the strip allowed to burn. Measurement of the rate of burning shall then be recorded.

(5) *Disinfection.* All face shield materials shall be such as to withstand, without discoloration or deterioration, the cleansing and disinfection procedure as follows:

General. When a person is assigned protective equipment, it is recommended that this equipment be cleaned and disinfected regularly, without sharing by another person unless disinfected as herein specified.

Procedure. Thoroughly clean all surfaces with soap or suitable detergent, and warm water. Carefully rinse all traces of soap or detergent. Completely immerse the protector for ten minutes in a solution of modified phenol, hypochlorite, or quaternary ammonium compounds, in a strength specified by the manufacturer, at room temperature of 68°F. Remove protector from solution and suspend in a clean place for air drying at room temperature, or with heated air. Do not rinse because this will remove the residual effect.

Ultraviolet disinfecting equipment may be utilized in conjunction with the washing procedure above, when such equipment can be demonstrated to provide comparable disinfection.

Protectors showing need for extensive cleansing should be disassembled to the extent possible without tools, prior to the washing and disinfection procedure. Replace defective parts with new ones.

Storage. The dry parts or items should be placed in clean, dustproof containers to protect them.

4.6(88A)T.IV Eye protection.

4.6(1) *Styles and functions of protectors.*

a. Goggles, eyecup.

(1) *Basic types.* Eyecup goggles shall comprise two basic types as follows: Cup-type goggles designed to be worn by individuals who do not wear corrective spectacles or covercup-type goggles designed to fit over corrective spectacles.

(2) *Models.* The two basic types of eyecup goggles shall be subdivided into the following classes: Chipper's models providing impact protection against flying objects. Dust and splash models providing protection against relatively fine dust particles or liquid splashes and impact. Welder's and cutter's models providing protection against glare, injurious radiations, and impact.

The basic designs may be modified to provide more protection against special hazards, but the modified equipment shall meet the same requirements as the basic design.

(3) *General requirements.* All glass filter lenses intended for use under this section, employed in the foregoing models, shall be heat-treated and meet the impact-resistance requirements provided in 4.6(3)d(2).

Eyecup goggles shall consist of two eyecups, with lenses and lens retainers, connected by an adjustable bridge, and a replaceable and adjustable headband or other means for retaining the eyecups comfortably in front of the eyes. Specific recommendations for the use of eyecup goggles will be found in Fig. 6.

(4) *Detailed requirements.**

Eyecup material. Eyecups shall be made from a plastic or other material of such composition as to withstand the heat deformation test outlined in 4.6(1) ["a"(5)] and the disinfection, water absorption, and flammability tests outlined in 4.6(2).

Vision and fit. Cup-type goggles. Eyecups shall be right and left in pairs and shall permit an effective angle of vision not less than 105 degrees, assuming that the pupil of the eye is located seventeen millimeters behind the inner surface of the lens. The edge of the eyecup which bears against the face shall have a smooth surface free from roughness or irregularities which might exert undue pressure or cause discomfort to the wearer. The eyecups shall be of such shape and size as to protect completely the entire eye sockets.

Cover-cup-type goggles. Eyecups shall be right and left in pairs and shall permit an effective angle of vision not less than ninety degrees. The goggles shall be designed to provide ample clearance and will not interfere with the spectacles of the wearer. The edges of the goggles which bear against the face shall have a smooth surface free from roughness or irregularities which might exert undue pressure or cause discomfort to the wearer.

Ventilation. Chipper's models. Eyecups shall be ventilated in a manner to permit circulation of air. Ventilation openings shall be such as to exclude a spherical particle 0.040 inch (1 millimeter) in diameter.

The equivalent area of opening for ventilation in each eyecup through the side shall be not less than the area of a $\frac{5}{16}$ -inch (15.9 millimeter) diameter hole. The equivalent area of opening in each eyecup through or around a lens-retaining ring shall be not less than the area of a $\frac{5}{16}$ -inch (7.9 millimeter) diameter hole. The openings in the side shields shall be such as to exclude any particle that will not pass through an opening 0.040 inch (1 millimeter) in diameter. The openings in or around the lens-retaining rings shall be such as to exclude any particle that will not pass through an opening 0.080 inch (2.03 millimeters).

Dust and splash models. Eyecups shall be ventilated in a manner to permit circulation of air. The ventilation openings shall be baffled or screened to prevent the direct passage of dust or liquids into the interior of the eyecups.

The equivalent area of openings of ventilation in each eyecup shall be not less than the

area of a $\frac{1}{4}$ -inch (6.35 millimeter) diameter hole.

Welder's and cutter's models. Eyecups shall be ventilated in a manner to permit circulation of air and shall be opaque from 1,900 to 12,000 angstrom units. The ventilation opening shall be baffled to prevent the passage of light rays into the interior of the eyecups.

The equivalent area of openings of ventilation in each eyecup shall be not less than the area of a $\frac{1}{4}$ -inch (6.35 millimeter) diameter hole.

Lens-retaining ring. Each eyecup shall be provided with a rigidly constructed lens-retaining ring of metal or of plastic designed to accommodate lenses and to permit their ready removal and replacement without damage to the eyecup or to the lenses and without the use of tools. The ring shall provide a complete clamping action against the lens. Lens retainers for welder's and cutter's models shall be such as to accommodate a filter lens, fiber gasket, and cover lens.

Lens seat. Each eyecup shall have a lens seat sufficiently wide to support the lens and to resist the falling inward of the broken lens when the lens is subjected to the impact test specified below:

Lens impact resistance. Chipper's models and dust and splash models. Clear and absorptive lenses for shades 1.7 through 3.0 shall be subjected to the impact test specified in 1.6(3)d(2).

Welder's and cutter's models. Filter lenses shall be subjected to the following impact test: The lens shall be removed from the eyecup and shall be placed flat on the end of a wooden tube having an internal diameter of 1.77 inches (45 millimeters) and a rim to fit the lens. A washer of neoprene rubber packing of a 40 plus or minus 5 durometer reading, not more than $\frac{1}{8}$ inch thick, and of the same internal diameter as the tube, shall be placed between the lens and the tube. A $\frac{3}{8}$ -inch steel ball shall be freely dropped from a height of fifty inches (1.27 meter) onto the horizontal outer surface of the lens. The lens shall not fracture from the impact of the steel ball.

Glass cover lenses (circles) shall not be heat-treated for impact resistance.

Marking. All filter lenses shall be marked with the shade designation and a permanent and legible marking by which the manufacturer may be readily identified. In addition, all glass filter lenses, when treated for impact resistance, shall be marked with the letter "H".

(5) *Heat deformation test.* Eyecup goggles shall be tested for heat deformation by mounting the eyecup, with lenses and retaining ring in place, on a wooden block with a weight as shown in Fig. 3, and placing the whole assembly in a forced draft oven for one hour. The temperature of the oven shall be maintained at 150° F. (65.6°C.) for chipper's models and dust and splash models, and at 180° F. (82°C.) for welder's and cutter's models. After one hour, the assembly shall be removed

*For manufacturers' approval.

from the oven and shall be allowed to cool after which the dimensions (A), (B), and (D) shown in Fig. 2 shall be measured.

The maximum deviation from the original dimensions shall not exceed the following: For dimensions (A) and (B), $\frac{1}{2}$ percent, and for dimension (D), five percent. After testing, the retaining ring and the cup of the eyecup shall fit in a snug but not tight manner. The eyecup shall be mounted on the wooden block as follows: With the facial edge of the cup down and the lens horizontal, the bridge size fastened to the block by means of a piece of wire, with the eyecup resting on the edge of the block, which has a $\frac{3}{16}$ -inch radius, and 680-gram weight suspended from the eyecup by means of a piece of wire, one end of which is attached to the weight and the other end fastened in the temple-side headstrap hole (Fig. 3).

*b. Spectacles, metal, plastic, and combination metal and plastic.**

(1) *Description.* Safety spectacles require special frames. Therefore combinations of street-wear frames with safety lenses meeting this rule are definitely not in compliance.

Spectacles shall consist of two lenses in a frame which supports the lenses around their entire periphery, of suitable size and shape for the purpose intended, connected by a nose bridge, and retained on the face by temples or other suitable means. The spectacles shall be furnished with or without sideshields depending upon their intended use. The frames, temples, and sideshields can be of metal or plastic construction and when made of plastic shall be of the slow-burning type.

Protection. Spectacles shall provide protection to the eye from flying objects, and when required, from glare and injurious radiations. Spectacles without sideshields are intended to provide frontal protection. Where side as well as frontal protection is required, the spectacles shall be provided with sideshields. Specific applications for use will be found in Fig. 6.

Marking. These frames shall be designed for industrial exposure and shall bear a trademark identifying the manufacturer on both fronts and temples. The frame front shall carry a designation of the eye size and bridge size (where applicable). Temples will be marked as to the over-all length or fitting value.

Frame and lens sizes. Spectacle frame and lenses shall be of identical shape and configuration and of such dimensions to assure support of the lens by the lens frame around its entire periphery.

The frames and lenses may be available in 42-, 44-, 46-, 48-, and 50-millimeter eye sizes and the distance between the lenses (bridge size) measured at the nearest point of bridge gap shall range from 18 millimeters to 26 millimeters and shall be specified. A tolerance of the specified bridge size plus or minus 1-millimeter shall be permitted. A saddle or universal fitting bridge may be used.

Plano lenses shall be flat or 6.00 diopter curve, and corrective lenses are to be as specified on the individual prescription.

Temples. Temples may be of the cable or spatula type as specified, and shall be of such design as to permit adjustment and fit comfortably and securely on the wearer. The size of the temples shall be clearly marked.

(2) *Detailed requirements.*

Type I—metal frame. Style A—without sideshields. Front. The front member of the frame shall consist of two metal lens-frames connected by a nose-bridge member. The bridge shall be a single-bar bridge or a brace-bar bridge. In addition, there may be an upper-brace (brow) bar. All points of attachment of metal components shall be brazed (hard-soldered) or welded.

The lens frame shall consist of a rim with a lens groove designed to fit the lenses specified herein. Each lens frame shall be provided with a high-positioned endpiece or lens clamp, and in addition shall be of such construction as to permit the independent changing of lenses or temples.

Temples. Temples of the metal-cable type shall be prefitted to the average ear shape and the cable section or flexible portion shall be covered with a flexible plastic, the terminal ends of which shall be secured to prevent any tendency to slip off the metal core. Cable temples may be provided in 5 $\frac{1}{4}$ -, 6-, 6 $\frac{1}{4}$ -, 6 $\frac{1}{2}$ -, 6 $\frac{3}{4}$ -, and 7-inch over-all lengths, plus or minus $\frac{1}{8}$ inch. Cable temples shall be similar to Fig. 3 in configuration.

Spatula temple for metal frames shall consist of a metal temple, the rear portion of which shall be covered by a plastic paddle and preformed to average ear conformance. Temple lengths shall be based upon fitting values and may be provided in 3 $\frac{3}{4}$ -, 4-, 4 $\frac{1}{4}$ -, 4 $\frac{1}{2}$ -, 4 $\frac{3}{4}$ -, 5-, 5 $\frac{1}{4}$ -, 5 $\frac{1}{2}$ -, and 5 $\frac{3}{4}$ -inch lengths, plus or minus $\frac{1}{8}$ -inch length to bend (joint to ear length). Spatula temples shall be similar to Fig. 4 in configuration.

Fitting value is determined by obtaining the distance from the endpiece of the glasses to a point approximately $\frac{1}{4}$ inch below the top of the ear, measured behind the ear.

Nose pads. Metal frame spectacles may be equipped with nose pads of the adjustable rocking-pad type or the rigid nonadjustable type. The plastic parts of the pads shall be made of noncombustible or slow-burning material.

Nose pads of the adjustable rocking-pad type shall be of metal reinforced plastic construction. The shaping and reinforcing elements of the pad shall consist of an inserted metal blade and the nose pads shall be securely attached to pad arms of the gooseneck type. The pad arms shall be sufficiently strong to prevent accidental maladjustment and shall be bendable by means of optician's pliers to permit adjustment to fit individual wearers.

Nose pads of the rigid type will consist of a suitable insert element of plastic or other material which shall be inserted into the bridge

*For manufacturers' approval.

area of the metal frame and be securely held in place. This rigid pad element may be of the conventional keyhole-type construction or of the universal or saddle-bridge construction.

Style B—with sideshields. In addition to the general requirements of Style A, Style B frames shall be equipped with sideshields designed to prevent the entry of flying particles from the side of the wearer. The sideshields themselves shall consist of wire screen, perforated plastic, or nonperforated plastic. The sideshields shall not be easily detachable from the frame, and in particular snap-on or clip-on types of sideshields are not acceptable unless secured. Sideshields shall be pivoted to permit their folding when the spectacles are not in use. The sideshields shall be tapered with an anatomical periphery, extending at least half-way around the circumference of the lens frame, shall fit snugly without binding on the frame, and the edges of the sideshield which come in contact with the face shall be smooth and rounded.

Wire-mesh sideshields. Wire-mesh sideshields shall consist of a frame of metal or plastic which securely holds a 20- to 40-mesh wire screen. The wire section of the sideshield may have either a bright or dull finish. The metallic components shall be able to withstand the sterilization process as described in 4.5(3)h(5).

Perforated plastic sideshields. Perforated plastic sideshields shall consist of a frame of metal or plastic which securely holds the perforated plastic section. The perforated plastic section shall have a minimum area of ventilation of from 0.02925 square inches to 0.0585 square inches, and perforations shall be of such size as to exclude a 1.5-millimeter diameter sphere.

Nonperforated plastic sideshields. Nonperforated plastic sideshields shall meet the same requirements as above except for the ventilating holes which will not be present. In addition, this type of sideshield, where used for glare protection, shall have transmission to incident visible light of not less than twenty-five percent and not more than forty-five percent.

Type II—plastic frame. Style A—without sideshield. Front. The front member of plastic frames shall consist of two lens frames connected by a nose-bridge member. The plastic shall not have toxic effects on skin or offensive odors. Frames shall have an adequate polish and shall afford a reasonable degree of comfort to the wearer, and shall be readily fitted in the conventional manner. Lens frames shall contain grooves to fit accurately with lenses specified in the sizes outlined in 4.6(1)"b", (Frame and lens sizes) and shall be provided with high-positioned end-pieces. The perpendicular distance from the center of the temple hinge to a line connecting the geometric centers of the lens frames shall be not less than six millimeters. Construction and materials of the lens frames shall be such that lenses of identical size and shape may be readily removed and replaced.

Front and temple hinges shall be securely fastened, and shall mesh in a suitable manner and be joined in such a way as to eliminate accidental loosening while still providing interchangeability.

The frame front may consist of a single-color plastic or of the two-tone plastic type, and may or may not contain a reinforcing bar.

Plastic frame fronts may have a conventional keyhole-type bridge, a saddle bridge, or universal-type bridge.

Temples. Cable temples shall be prefitted to the average ear shape, and the cable section or flexible portion shall be covered with a flexible plastic, the terminal ends of which shall be secured to prevent any tendency to slip off the metal core. The temple itself may be of all-metal construction or of combination metal and plastic construction. Where metal-plastic construction is used, the rigid area of the temple shall be covered with plastic material similar to the material of the frame front. In the all-metal cable-temple construction, this forward area may or may not be covered. Cable temples may be provided in 5¼-, 6-, 6¼-, 6½-, 6¾-, and 7-inch lengths plus or minus ½ inch. Cable temples shall be similar to Fig. 3 in configuration.

Spatula temples for plastic frames may consist of suitable plastic, metal-reinforced plastic, or of all-metal construction. The rear portion of these temples shall be preformed to the average ear configuration. The metal-reinforced plastic-type temple shall consist of a central metal core and plastic material similar to that of the frame front. In the all-metal temple construction the terminal or back end of the temple shall be covered by plastic. Temple lengths shall be based upon fitting values and may be provided in 3¾-, 4-, 4¼-, 4½-, 4¾-, 5-, 5¼-, 5½-, and 5¾-inch lengths plus or minus ½-inch length to bend (joint to ear length). Spatula temples shall be similar to Fig. 4 in configuration.

All temple hinges shall be securely fastened to the temple (cable or spatula) and shall readily mesh with and match the hinge on the spectacle frame front.

Nose pads for plastic-frame-front spectacles may be of the rigid type (an integral part of the frame front) or may be of the adjustable plastic-covered rocking type which are securely attached to the frame front. The rocking pad (adjustable-pad type) shall consist of metal-reinforced slow-burning plastic-covered nose pads. The shaping and reinforcing elements of the pad shall consist of an inserted metal blade, and the nose pads shall be securely attached to pad arms of the gooseneck type. The pad arms shall be sufficiently strong to prevent accidental maladjustment and shall be bendable by means of an optician's pliers to permit adjustment to fit the individual wearer. The pad arms shall be securely attached to the frame front in such a manner that they will not work loose when the pad arms are adjusted.

Style B—with sideshields. In addition to the general requirements of Style A, Style B plastic frames shall be equipped with sideshields to prevent the entry of flying particles from the side of the wearer. The sideshields themselves shall consist of wire screen, perforated plastic, or nonperforated plastic. The sideshields shall not be easily detachable from the frame, and, in particular, snap-on or clip-on types of sideshields are not acceptable unless secured. Sideshields shall be pivoted to permit their folding when the spectacles are not in use. The sideshields shall be tapered with an anatomical periphery extending at least halfway around the circumference of the lens frame, shall fit snugly without binding on the frame, and the edges of the sideshield which come in contact with the face shall be smooth and rounded.

Wire-mesh sideshields. Wire-mesh sideshields shall consist of a frame of metal or plastic which securely holds a 20- to 40-mesh wire screen. The wire section of the sideshield may have either a bright or dull finish to aid in peripheral vision. The metallic components shall be able to withstand the sterilization process as described in 4.5(3)h(5).

Perforated plastic sideshields. Perforated plastic sideshields shall consist of a frame of metal or plastic which securely holds the perforated plastic section. The perforated plastic section shall have a minimum area of ventilation of from 0.02925 square inches to 0.0585 square inches and perforations shall be of such size as to exclude a 1.5-millimeter diameter sphere.

Nonperforated plastic sideshields. Nonperforated plastic sideshields shall meet the same requirements as above except for the ventilating holes which will not be present. In addition, this type of sideshield, where used for glare protection, shall have transmission to incident visible light of not less than twenty-five percent and not more than forty-five percent.

Type III—combination metal and plastic frames. Style A—without sideshields. The front member of the frame shall consist of two metal lens frames connected by a nose-bridge member. All points of attachment of metal components shall be brazed (hard-soldered) or welded. In addition, there shall be an overlay over each eye. The plastic material shall not have toxic effects on skin or offensive odors.

The lens-frame shall consist of a rim with a lens-groove designed to fit the lenses specified herein. Each lens-frame shall be provided with a high-positioned endpiece or lens-clamp, and in addition, shall be of such construction as to permit the independent changing of lens or temple.

Temples. Cable temples shall be prefitted to the average ear shape, and the cable section or flexible portion shall be covered with a flexible plastic, the terminal ends of which shall be secured to prevent any tendency to slip off the metal core. The temple itself may be of all-metal construction or of the combina-

tion metal and plastic construction. Where metal-plastic construction is used, the rigid area of the temple may be covered with plastic material similar to the plastic material of the frame front. In the all-metal cable temple construction this forward area may or may not be covered. Cable temples may be provided in 5¼-, 6-, 6¼-, 6½-, 6¾-, and 7-inch lengths plus or minus ½ inch. Temples shall be similar to Figs. 3 and 4 in configuration and sizes.

Spatula temples for combination frames may consist of suitable plastic of the metal-reinforced plastic type or of all-metal construction. The rear portion of these temples shall be performed to the average ear configuration. The metal-reinforced plastic-type temple shall consist of a central metal core and plastic material similar to that of the frame front. In the all-metal temple construction the terminal or back end of the temple shall be covered by a plastic paddle. Temple lengths shall be based upon fitting values and may be provided in 3¾-, 4-, 4¼-, 4½-, 4¾-, 5-, 5¼-, 5½-, and 5¾-inch lengths plus or minus ½ inch length to bend (joint to ear length). Spatula temples shall be similar to Fig. 4 in configuration.

All temple hinges shall be securely fastened to the temple (cable or spatula) and shall readily mesh with and match the hinge on the spectacle frame front.

Nose pads. Combination frame spectacles may be equipped with nose pads of the adjustable rocking-pad type or the rigid nonadjustable type. The plastic parts of the pads shall be made of noncombustible or slow-burning material.

Nose pads of the adjustable rocking-pad type shall be of metal-reinforced plastic construction. The shaping and reinforcing elements of the pad shall consist of an inserted metal blade, and the nose pads shall be securely attached to pad arms of the gooseneck type. The pad arms shall be sufficiently strong to prevent accidental maladjustment and shall be bendable by means of optician's pliers to permit adjustment to fit individual wearers.

Style B—with sideshields. In addition to the general requirements of Style A, Style B frames shall be equipped with sideshields designed to prevent the entry of flying particles from the side of the wearer. The sideshields themselves shall consist of wire screen, perforated plastic, or nonperforated plastic. The sideshields shall not be easily detachable from the frame, and, in particular, snap-on or clip-on types of sideshields are not acceptable unless secured. Sideshields shall be pivoted to permit their folding when the spectacles are not in use. The sideshields shall be tapered with an anatomical periphery, extending at least halfway around the circumference of the lens frame, shall fit snugly without binding on the frame, and the edges of the sideshield which come in contact with the face shall be smooth and rounded.

Wire-mesh sideshields. Wire-mesh sideshields shall consist of a frame of metal or

plastic which securely holds a 20- to 40-mesh wire screen. The wire section of the side-shield may have either a bright or dull finish. The metallic components shall be able to withstand the corrosion-resistance process as described in 4.5(3) ["h"(5)].

Perforated plastic sideshields. Perforated plastic sideshields shall consist of a frame of metal or plastic which securely holds the perforated plastic section. The perforated plastic section shall have a minimum area of ventilation of from 0.02925 square inches to 0.0585 square inches, and perforations shall be of such size as to exclude a 1.5-millimeter diameter sphere.

Nonperforated plastic sideshields. Nonperforated plastic sideshields shall meet the requirements as above except for the ventilating holes which will not be present. In addition, this type of sideshield, where used for glare protection, shall have transmission to incident visible light of not less than twenty-five percent and not more than forty-five percent.

(3) *Materials and methods of test.*

General. In addition to specific requirements outlined hereafter, materials used shall be capable of withstanding the disinfection, corrosion-resistance, water-absorption, and flammability tests in 4.6(2).

Strength of lens containers. That portion of the frame which supports the lenses shall be of sufficient strength to withstand, without breakage and without dislodging the lens, the fracture-resistance test for lenses specified in 4.6(3) ["d"(2)].

Type I—metal frames. Strength of joints. The soldered, brazed, or welded joints shall be given the following tests to demonstrate their strength and durability. The lens containers with lenses in place shall be gripped one in each hand, with the thumbs bearing on the outer surface near the bridge and the fingers on the inner surface of the lenses near the junction of the bridge and the lens container. The frame shall then be bent, the direction of motion being in a plane perpendicular to the surface of the lenses, until the outer surfaces of the lenses face each other, the outer ends of the frame touching. The frame shall then be bent back to its original shape and a careful inspection made for failure in the joints. All frames tested shall pass this test without developing visible joint fracture. Frames with upper-brace (brow) bars shall have the brace bar cut before performing test.

Flat transverse test. The right lens container of each frame tested shall be laid flat, with the outer surface of the lens downward, on a firm, level support so that the left lens and one-half of the bridge project beyond the edge of the support, and it shall be held in this position. A spring balance shall be attached to the outermost portion of the frame of the left lens, and a downward force of eight ounces (227 grams) shall be applied while the right lens frame is rigidly held. After removal of the load no permanent deformation shall be apparent in the frame.

Edge transverse test. The right lens container of each frame tested shall be held vertically in one hand and the lower edge of the left lens container, as worn, shall be pressed against one of the platforms of an equal-arm balance having a weight of three pounds on the other platform. The pressure shall be increased until the weight is balanced, whereupon the frame shall be removed and examined. No permanent deformation shall be apparent in the frame.

Type II—plastic frames. Flat transverse test. Each frame tested shall have one lens container laid flat with the outer surface of the lens downward on a firm, level support so that the lens container and one-half of the bridge project beyond the edge of the support. It shall be held firm in this position. Suitable weights shall be attached to the outermost portion of the frames so that a downward force of sixteen ounces (454 grams) shall be applied. Upon removal of the load, no deformation shall be apparent in the frame.

Edge transverse test. Each plastic frame tested shall contain the lenses and shall have the right lens container held vertically in one hand and the lower edge of the left lens container, as worn, pressed against one of the platforms of an equalarm balance having a weight of five pounds on the other platform. The pressure shall be increased until the weight is balanced, whereupon the frame shall be removed and examined. No deformation shall be apparent.

Type III—combination metal-plastic frames. Strength of joints. The soldered, brazed, or welded joints shall be given the following tests to demonstrate their strength and durability. The lens containers with lenses in place shall be gripped one in each hand, with the thumbs bearing on the outer surface near the bridge, and the fingers on the inner surface of the lenses near the junction of the bridge and the lens container. The frame shall then be bent, the direction of motion being in a plane perpendicular to surface of the lenses, until the outer surfaces of the lenses face each other, the outer ends of the frame touching. The frame shall then be bent back to its original shape and a careful inspection made for failure in the joints. All frames tested shall pass this test without developing visible joint fracture.

Flat transverse test. The right lens container of each frame tested shall be laid flat, with the outer surface of the lens downward, on a firm, level support so that the left lens and one-half of the bridge project beyond the edge of the support, and it shall be held in this position. A spring balance shall be attached to the outermost portion of the frame of the left lens, and a downward force of eight ounces (227 grams) shall be applied while the right lens frame is rigidly held. After removal of the load no permanent deformation shall be apparent in the frame.

Edge transverse test. The right lens container of each frame tested shall be held vertically in one hand and the lower edge of the

left lens container, as worn, shall be pressed against one of the platforms of an equal-arm balance having a weight of three pounds on the other platform. The pressure shall be increased until the weight is balanced, whereupon the frame shall be removed and examined. No permanent deformation shall be apparent in the frame.

c. Goggles, flexible- or cushioned-fitting.

(1) *Description.* Goggles shall consist of a wholly flexible frame, forming a lens holder, or with separable lens holder; or a rigid frame with integral lens or lenses, having a separate, cushioned-fitting surface on the full periphery of the facial contact area. Materials used shall be chemical-resistant, nontoxic, non-irritating and slow-burning. There shall be a positive means of support on the face, such as an adjustable headband of suitable material or other suitable means of support to retain the frame comfortably and snugly in place in front of the eyes. When the frame is a lens holder or has a separable lens holder, it should be such that the lens or lenses are held firmly and tightly and may be removed or replaced without the use of tools. The goggles may be ventilated or not, as required by their intended use. Where chemical goggles are ventilated, the openings shall be such as to render the goggles splashproof.

(2) *Models.* Chipper's models shall provide protection against impact. Dust and splash models shall provide protection from fine dusts, fumes, liquids, splashes, mists, and spray, alone or with reflected light or glare, wind, and impact. Welder's and cutter's models shall provide protection against glare, injurious radiations, and impact. Eyecups and lens holders shall be opaque from 1,900 to 12,000 angstrom units.

(3) *Application.* Specific application for use of these goggles will be found in Fig. 6.

(4) *General requirements.* All glass filter lenses or plates intended for use under this section, employed in the foregoing models shall be heat-treated and meet the impact-resistance requirements in 4.5(2) ["d"(1)], 4.6(3) ["d"(2)] 4.6(1) ["a"(4)], whichever is applicable.

Goggles shall be so designed as to protect completely the eye sockets and the facial area immediately adjacent to and surrounding the eyes of the wearer to protect the eye from side exposure. Where required, the design shall be such that the goggles will fit over ordinary spectacles worn by the wearer. Goggles shall be so designed as to afford an effective angle of vision of not less than ninety degrees. Where the goggle consists of an opaque frame and is designed for protection against radiant energy, the angle of vision is not applicable. The methods of attachment to frame shall be such that the lens will not be inwardly dislodged from its seat when it is subjected to the impact resistance or penetration tests specified in 4.6(3) ["d"(2)] or 4.6(1) ["a"(4)], whichever is applicable. Where a rigid frame design is used, the cushioned-fitting substance

affixed for peripheral contact shall be of sufficient thickness or diameter to maintain a seal with comfort and conformity to normal facial contours.

(5) *Materials and methods of test.* Plastic lenses used in flexible-fitting goggles and lens areas of cushioned-fitting goggles shall be not less than 0.050 inch in thickness. Materials used shall be capable of withstanding the disinfection, corrosion-resistance, water-absorption, and flammability tests outlined in 4.6(2).

(6) *Marking.* Frames shall bear a trade-mark or name identifying the manufacturer. Each separate lens shall be distinctly marked in a manner by which the manufacturer may be identified. In addition, all heat-treated glass filter plates or lenses shall be marked with the shade designation and the letter "H". Such marking shall be clear cut and permanent and so placed as not to interfere with the vision of the wearer.

d. Goggles, foundrymen's.

(1) *Description.* Goggles shall consist of a mask made of a flexible, nonirritating and noncombustible or slow-burning material, such as leather or flexible plastic, suitable lens holders attached thereto, lenses, and a positive means of support on the face, such as an adjustable headband, to retain the masks comfortably and snugly in place in front of the eyes. The edge of the mask on contact with the face shall be provided with a binding of corduroy or other suitable material. The lens holders shall be so designed that the lenses are held firmly and tightly and may be readily removed or replaced. The lens holders shall be ventilated to permit circulation of air. Ventilation opening shall exclude a spherical particle 0.039 inch (1 millimeter) in diameter. For protection against heavy concentrations of dust, the use of a fine-mesh screen lining (100-mesh screen) is recommended. Such lining shall be suitably and permanently fastened to the inside surface of each lens holder assembly.

(2) *Protection.* The goggles shall provide protection against impact and hot-metal splash hazards encountered in foundry operations such as melting, pouring, chipping, babbitting, grinding, and riveting. Where required, they shall also provide protection against dusts.

(3) *Application.* Specific application for use of foundrymen's goggles will be found in Fig. 6.

(4) *Materials and methods of test.* Materials used shall be capable of withstanding the disinfection, corrosion-resistance, water-absorption, and flammability tests outlined in 4.6(2).

Impact and penetration-resistance tests shall be as specified in 4.6(3) ["d"(2)] and 4.6(3) ["d"(3)].

4.6(2) Materials and methods of test of protectors.*

a. Materials. Materials used in the manufacture of eye protectors shall combine mechanical strength and lightness of weight to a

*For manufacturers' approval.

high degree, shall be nonirritating to the skin when subjected to perspiration, and shall withstand frequent disinfection by the methods hereinafter prescribed. Where metals are used they shall be inherently corrosion-resistant. Where plastic materials are used, such materials shall be noncombustible or slow burning. Cellulose nitrate, or materials having flammability characteristics approximating those of cellulose nitrate, shall not be used.

b. Disinfection. All materials shall be such as to withstand, without deterioration or discoloration, the cleansing and disinfection procedure specified in 4.6(2).

c. Corrosion-resistance. Metal parts shall be tested for corrosion-resistance by placing them in a boiling aqueous ten percent (by weight) solution of sodium chloride for a period of fifteen minutes. The parts upon being removed from this solution shall be immediately immersed in a ten-percent (by weight) aqueous solution of sodium chloride at a room temperature of 68°F. They shall then be removed from this solution and, without wiping off the adhering liquid, allowed to dry for twenty-four hours at room temperature. The metal parts shall then be rinsed in lukewarm water and allowed to dry. On visual inspection, the metal parts shall show no signs of roughening of the surface resulting from corrosion.

d. Water-absorption. Plastic parts shall be tested for water-absorption. The amount of the water absorbed shall not exceed five percent.

e. Flammability. A section at least one inch long of the plastic components of the frame shall be exposed to a test for determining the flame-propagation rate. For this purpose the frame components (eye wire, temples, and side shields) shall be ignited individually by holding one end of the specimen horizontally at the top of a luminous $\frac{3}{4}$ -inch Bunsen burner flame in a draft-free room. The rate of propagation determined by a stop watch shall be twenty-four seconds per inch or less. A faster rate of propagation shall be cause for rejection.

4.6(3) Lenses.

a. Types of lenses. Lenses intended for use in protectors covered by these rules shall comprise four basic types, as follows:

(1) *Clear lenses.* Impact-resisting, providing protection against flying objects.

(2) *Absorptive lenses (shades 1.7 through 3.0).* Impact-resisting, providing protection against flying objects and glare. Impact-resisting, providing protection against flying objects, and narrow-band spectral transmittance against injurious radiation.

(3) *Protective-corrective lenses.* Impact-resisting, either clear or absorptive, as specified for persons requiring visual correction.

(4) *Filter lenses.* Impact-resisting, providing protection against flying objects and injurious radiation.

b. General requirements.

(1) *Optical quality.* All lenses shall be made of material suitable for ophthalmic use and both surfaces of the lenses shall be well polished and free from visible surface defects. The lenses shall be free from striae, bubbles, waves, and other visible defects and flaws which would impair their optical quality.

(2) *Prismatic and refractive power.* The prismatic effect of a noncorrective lens shall not exceed $\frac{1}{16}$ prism diopter (two minutes of angular deviation). The refractive power, in any meridian, of any noncorrective lens shall not exceed plus or minus $\frac{1}{16}$ prism diopter. The difference in refractive power of any two meridians shall not exceed $\frac{1}{16}$ diopter.

(3) *Size tolerances.* Circumferential tolerances of lenses shall be held sufficiently close to permit interchangeability or replacement in their respective frames.

(4) *Edges.* The edges of the lenses shall be smooth and, where required, lenses shall be bevelled and such bevelled edges shall be dull-finished.

(5) *Haze.* Plastic lenses of all types shall exhibit not more than six percent haze.

(6) *Lenses for persons requiring visual correction.* Persons whose vision requires the use of corrective lenses in spectacles and who are required by these rules to wear protective goggles shall use protectors of one of the following types:

Safety spectacles whose protective lenses provide the proper optical correction and withstand the drop test specified in 4.6(3) ["d"(2)]. Such lenses are exempted from the requirements for parallelism of surfaces. Minimum thickness of prescription lenses shall be 3.0 millimeters, except in the case of lenses of strong plus power, when the edge thickness may be reduced to 2.5 millimeters, provided they meet the impact test specified in 4.6(3) ["d"(2)].

Goggles which can be worn over corrective spectacles without disturbing the adjustment of the spectacles.

c. Detailed requirements.

(1) *Lens thickness.* Glass or plastic lenses for use in eyecup goggles, metal-or plastic-frame or metal-plastic combination-frame spectacles, or foundrymen's goggles shall be not less than 3.0 millimeters, nor more than 3.8 millimeters in thickness. (For corrective lenses, see 4.6(3) ["b"(6)].)

(2) *Marking.* Each lens shall be distinctly marked in a permanent and legible manner with the manufacturer's monogram. Such marking shall be so placed as not to interfere with the vision of the wearer.

Each filter lens shall be marked with the shade designation. Each glass filter lens shall be marked with the letter "H" to indicate treatment for impact resistance.

(3) *Transmittance.*

Absorptive lenses (shades 1.7 through 3.0). Absorptive lenses shall meet the radiant-energy transmission requirements hereinafter specified (See Table 1). They shall be sup-

plied in pairs. For shades 1.5 to 2, inclusive, both lenses of a pair shall have the same luminous transmittance within ten percent; for shades 2.5 and darker, both lenses of a pair shall have the same luminous transmittance within twenty percent.

Filter lens (shades 4.0 through 14.0). Filter lenses shall meet the radiant-energy-transmission requirements specified in Table 1. They shall be supplied in pairs and both lenses shall have the same luminous transmittance within twenty percent.

Clear lenses. Clear lenses shall transmit not less than eighty-nine percent of the incident luminous radiation.

(4) *Lens strength.* All lenses shall be capable of withstanding the impact resistance test as specified in 4.6(3) ["d"(2)].

*d. Methods of test and examination of lenses.**

(1) *Tests for prismatic and refractive power and for definition.* Lenses of all types shall be tested for prismatic and refractive power and for definition by any standard methods which are of sufficient accuracy for the purpose and are equivalent to the following National Bureau of Standards methods:

Prismatic power. The lenses may be tested for prismatic power with an 8-power telescope which has an effective aperture of 0.75 inch and is equipped with cross hairs in the focal plane of the ocular. The telescope is to be focused on an illuminated target at a distance of thirty-five feet from the telescope objective, comprising a central dot and a concentric circle $\frac{1}{2}$ inch in diameter. The telescope is to be so aligned that the image of the central dot falls on the intersection of the cross hairs in the focal plane of the ocular. The lens is to be held in front of the objective lens of the telescope and, if the intersection point of the cross hairs falls without the image of the circle, the prismatic power of the goggle lens exceeds $\frac{1}{16}$ prism diopter.

Refractive power. The lenses may be tested for refractive power by any suitable instrument such as a vertometer, lensometer, or telescope. The lenses may be tested for refractive power with an 8-power telescope which has an effective aperture of 0.75 inch and is focused at a distance of thirty-five feet on an illuminated test chart. As a test chart, the resolving power chart pattern 20, National Bureau of Standards, Circular C533 is recommended. An advantage in adopting this chart is that by its use it becomes possible to provide all inspectors with identical charts, whereas if charts are improvised at different places they are likely to be different. The lens to be tested shall be placed in front of the telescope objective which is then brought to the sharpest possible focus. The pattern marked 20 should be clearly resolved with the target placed at a distance of thirty-five feet from the telescope objective used for testing lenses. The telescope is calibrated by successively locating the position of best focus with first a

standard lens of plus $\frac{1}{16}$ diopter in front of the objective and then with a standard lens of minus $\frac{1}{16}$ diopter in front of the objective. These positions are marked by scratches on the draw tube or by other suitable index marks, the refractive power is in excess of $\frac{1}{16}$ diopter.

Definition. The lenses may be tested for definition with an 8-power telescope which has an effective aperture of 0.75 inch and is focused at a distance of thirty-five feet on an illuminated test chart. As a test chart the resolving power chart pattern 20 of National Bureau of Standards, Circular C533 may be used. An advantage in adopting this chart is that by its use it becomes possible to provide all inspectors with identical charts, whereas if charts are improvised at different places they are likely to be different. The lens to be tested shall be placed in front of the telescope objective, which in turn is then brought to the sharpest possible focus. The pattern marked 20 should be clearly resolved with the target placed at a distance of thirty-five feet from the telescope objective used for testing lenses.

(2) *Impact resistance test.*

Lens in frame—glass and plastic. The frame eye, with inserted lens object side up, shall be supported, centered in relation to the test-block-shaped aperture, on the test block of an anvil composed of the part shown in Fig. 7, mounted in the hole of the base plate shown in Fig. 9, the whole assembly on a flat, horizontal work surface of convenient height. To assure uniform test support of the frame eye periphery on the test block the protruding frame nose pad and temple hinge shall be removed.

A 1.00-inch diameter steel ball, weighing approximately 2.4 ounces, shall be dropped in free fall from a height of fifty inches onto the horizontal upper surface of the lens, impinging the lens within a circular area of $\frac{3}{8}$ -inch diameter centered at the lens mechanical center. The lens edge shall not be chipped and lens shall not be displaced from the frame eye in this test.

Lens on block—glass and plastic. The lens shall be removed from the frame and placed mechanically centered, object side up, on the test block of an anvil composed of the part shown in Fig. 8, mounted in the hole of the base plate shown in Fig. 9, the whole assembly on a flat, horizontal work surface of convenient height.

A 1.00-inch diameter steel ball, weighing approximately 2.4 ounces, shall be dropped in free fall from a height of fifty inches onto the horizontal upper surface of the lens, impinging the lens within a circular area of $\frac{3}{8}$ -inch diameter centered at the lens mechanical center. The lens shall not fracture in this test.

Breakage pattern—glass only. As a test to determine the type of breakage pattern exhibited by a lens when subjected to a force sufficient to break it, a lens may be broken by increasing the height of drop by the 1-inch steel ball or by employing a heavier ball. If

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made of glass, the lens shall break predominantly with radial cracks with a minor tendency toward concentric cracks. Any tendency to break with lines of cleavage parallel to the surface indicates an unsatisfactory heat-treatment; and the lenses represented by that sample shall be considered as not conforming to these requirements.

(3) *Penetration resistance—plastic only.* The frame and lens shall be supported on a wooden block of such size and shape as to fit the frame securely. A pointed projectile of suitable size, consisting of a new Singer number 25, size 135 x 17 needle, fastened into a holder weighing approximately 1.56 ounces, shall be freely dropped, pointed downward, from a height of fifty inches onto the horizontal outer surface of the lens. The projectile may be guided, but not restricted, in its fall by being dropped through a tube extending to within approximately four inches of the lens. The lens shall not be pierced through from the impact.

(4) *Haze—plastic only.* Plastic lenses of all types shall exhibit not more than six percent haze.

(5) *Flammability—plastic only.* Where plastic materials are used in lenses, such materials shall be noncombustible or slow burning. Cellulose nitrate, or materials having flammability characteristics approximating those of cellulose nitrate, shall not be used. Such plastic lenses shall be exposed to a test to determine the flame-propagation rate. The specimen shall be ignited by holding one end of the specimen horizontally at the top of a luminous $\frac{3}{4}$ -inch Bunsen burner flame in a draft-free room. The rate of propagation determined by a stop watch shall be twenty-four seconds per inch or less. A faster rate of propagation shall be cause for rejection.

(6) *Ultraviolet, luminous, and infrared transmittance—plastic and glass.* The ultraviolet, luminous (total visible), and infrared transmittance of lenses of all types shall be determined by any standard method recognized as suitable by the National Bureau of Standards. The following methods are suggested:

Ultraviolet transmittance—plastic and glass. The source of radiant energy for determining the ultraviolet spectral transmittance shall be a quartz mercury arc or other source emitting an intense and preferably discontinuous spectrum. The intense emission lines of the quartz mercury are at 313 millimicrons, 334 millimicrons, 365 millimicrons, and 405 millimicrons are conveniently distributed and well adapted for making these measurements. If other sources are used, the wave lengths closest to the above values of the mercury arc may be used.

Luminous transmittance—plastic and glass. The standard source of radiant energy used in the measurement of the luminous transmittance of filter lenses shall be a Projection Type Lamp No. T-8 (or other high-powered gas-filled tungsten filament incandescent lamp) op-

erated at the color temperature (2854°K). The luminous transmittance shall be determined by one of the following means:

Photometrically by an observer having normal color vision, as determined by recognized color vision chart tests such as those employing pseudoisochromatic plates.

With a physical photometer consisting of a thermopile (or other radiometer) and a luminosity solution having a spectral transmittance curve which coincides closely with the luminous-efficiency curve of the average eye.

By measuring the spectral transmittance and calculating the luminous transmittance through the use of published data on the spectral radiant energy and the relative luminous efficiency of the average eye.

The standards of luminous transmittance maintained by the National Bureau of Standards are based on the latter method.

Infrared transmittance—plastic and glass. The same standard source or radiant energy used in determining the transmittance of luminous radiation shall be used also in the measurement of the transmittance of the total infrared radiation. One of the following methods shall be used for determining the total infrared transmittance:

By observing the infrared spectral-energy distribution curves of a gas-filled lamp, with and without the lens placed before the entrance slit of the spectrometer, and integrating the area under each of the two curves between the spectral limits of 700 millimicrons and 4,000 millimicrons.

By observing the integrated transmittance with a physical radiometer (e.g., a thermopile) covered with a deep red filter (such as Corning 2404) which has a high and uniform transmittance through the infrared spectrum and transmits less than 0.5 percent of the luminous radiation.

The latter method is employed at the National Bureau of Standards in the test of welding glass for government purchase.

4.7(88A)T.IV Respiratory protection.

4.7(1) *Classification of hazards.* Hazardous atmospheres fall into the following broad groupings:

Oxygen deficiency.

Gas and vapor contaminants:

Immediately dangerous to life or health.
Not immediately dangerous to life or health.

Particulate contaminants (dust, fog, fume, mist, smoke, and spray):

Immediately dangerous to life or health.
Not immediately dangerous to life or health.

Combination of gas, vapor, and particulate contaminants:

Immediately dangerous to life or health.
Not immediately dangerous to life or health.

a. *Oxygen deficiency.* The oxygen content of normal air is about 20.9 percent by volume. Atmospheres in confined spaces such

as wells, mines, holds of ships, tanks, and burning buildings may contain a lower percentage of oxygen because of dilution or displacement of the air by other gases or vapors, or because of the loss of oxygen by its reaction with, or absorption by, other substances. When the oxygen content of the air is about sixteen percent, the flame of a safety lamp will be extinguished. Below this concentration, a person breathing the air exhibits symptoms ranging from increased volume of breathing and acceleration of pulse rate of unconsciousness and death, depending on the oxygen content of the air and the degree of his physical activity.

b. Gas and vapor contaminants.

(1) *Asphyxiants*: Interfere with utilization of O₂ in the body.

Simple asphyxiants: Physiologically inert substances that dilute O₂ in the air (for example, nitrogen, hydrogen, helium, methane).

Chemical asphyxiants: Low concentrations interfere with supply or utilization of O₂ in the body (for example, carbon monoxide, hydrogen cyanide, cyanogen and nitriles).

(2) *Irritants: Corrosive in action.* May cause irritation and inflammation of parts of the respiratory system (also skin and eyes) and pulmonary edema (for example, ammonia, hydrogen chloride, formaldehyde, sulfur dioxide, chlorine, ozone, nitrogen dioxide, phosgene, and arsenic trichloride).

(3) *Anesthetics*: Cause loss of feeling and sensation with unconsciousness and death possible (for example, nitrous oxide, hydrocarbons and ethers). Some anesthetics injure body organs; for example, carbon tetrachloride (liver and kidneys), chloroform (liver and heart), benzene (bone marrow), and carbon disulfide (nervous system).

(4) *Systemic poisons*: Damage organs and systems in the body; for example, mercury (nervous system and various organs), phosphorous (bone), hydrogen sulfide (respiratory paralysis), and arsine (red blood cells and liver).

The toxicity of gases and vapors for man varies over a wide range. For instance, a ten-minute exposure to a concentration of 120 parts per million (ppm) of phosgene may be fatal, whereas one may safely breathe 1,000 ppm of dichlorodifluoro-methan (freon) throughout a working day.

Gaseous contaminants immediately dangerous to life are gases present in concentrations that would endanger the life of a person breathing them for even a short period of time. For example, 400 to 500 parts of sulfur dioxide per million parts of air (0.04 to 0.05 percent) by volume is considered to be dangerous for a short exposure.

Gaseous contaminants not immediately dangerous to life are gases present in concentrations that could be breathed for a short period without endangering the life of a person breathing them, but which might produce discomfort and possible injury after a prolonged single exposure or repeated short exposures. For instance, the threshold limit

value for sulfur dioxide has been set at 5 ppm, based primarily on the irritating effect of this gas on the nose, eyes, and throat.

c. Particulate contaminants (dust, fog, fume, mist, smoke, and sprays).

(1) *Relatively inert*: May cause discomfort and minor irritation, but generally without injury at reasonable concentrations (for example, marble, gypsum).

(2) *Pulmonary fibrosis-producing*: Produce nodulation and fibrosis in the lung, possibly leading to complications (for example, quartz, cristobalite, tridymite, asbestos).

(3) *Cancer-producing*: Produce cancer in some individuals after "latency" period of twenty to forty years (for example, asbestos, chromates, radioactive particulates).

(4) *Chemical irritants*: Produce irritation, inflammation, ulceration, and so forth, in upper respiratory tract (for example, acid mists, alkalis).

(5) *Systemic poisons*: Produce pathologic reactions in various systems of the body (for example, lead, manganese, cadmium).

(6) *Allergy-producing*: Produce reactions such as itching, sneezing and asthma (for example, pollens, isocyanates, gums, spices).

(7) *Febrile reaction-producing*: Produce chills followed by fever (for example, fumes of zinc and copper).

Particulate contaminants may be classified according to their physical properties into three broad groups as follows: (1) solid, such as dusts and fumes; (2) liquid, such as mists and fogs; and (3) a combination of solid and liquid, such as silica-water sprays and paint sprays.

The majority of particulate contaminants are not immediately dangerous to life; that is, days, weeks, or even years of exposure may transpire before harmful effects are noted. Notable exceptions are dusts and mists containing the organic phosphorous insecticides which, if present in high concentrations, may incapacitate or even kill a man in a very short time. Other exceptions to this generalization are certain radioactive particulates and the toxic war smokes such as diphenylchloroarsine (DA) and diphenylaminechlorarsine (DM).

d. Combination of gas, vapor, and particulate contaminants. In addition to atmospheres containing gaseous or particulate contaminants, there are those in which both types occur simultaneously. The contaminants may be entirely different substances, such as carbon monoxide and oxides of nitrogen produced by blasting and the dust from blasted material, or they may be the same substance in the liquid and in the vapor form, such as slightly volatile liquids that are atomized. The simultaneous occurrence of both gaseous and particulate contaminants in an atmosphere complicates the procedure for providing adequate respiratory protection against them.

4.7(2) Classification of respiratory protective devices. Respiratory devices fall into the following broad groupings on the basis of their mode of functioning:

Atmosphere-supplying respirators: Self-contained, hose-mask, air-line, combination self-contained and hose-mask or air-line.

Air-purifying respirators: Gas and vapor (gas mask and chemical cartridge), particulate (dust, fog, fume, mist, smoke, and sprays), combination gas, vapor, and particulate.

Combination atmosphere-supplying and air-purifying respirators.

a. Atmosphere-supplying respirators. A respirable atmosphere independent of the ambient air is supplied to the wearer.

(1) **Self-contained breathing apparatus.** Supply of air, oxygen, or oxygen-generating material carried by wearer. Normally equipped with full facepiece, but some with a mouth-piece for escape purposes.

Closed-circuit SCBA (oxygen only):

Compressed or liquid oxygen type. High-pressure O₂ from a gas cylinder passes through a high-pressure reducing valve and, in some designs, through a low-pressure admission valve to a breathing bag or container. Liquid oxygen is converted to a low-pressure gaseous oxygen and delivered to the breathing bag. The wearer inhales from the bag through a corrugated tube connected to a mouthpiece or facepiece and a one-way check valve. Exhaled air passes through another check valve and tube into a container of carbon dioxide removing chemical and re-enters the breathing bag. Makeup O₂ enters the bag continuously or as the bag deflates sufficiently to actuate an admission valve. A pressure relief system is provided and a manual bypass system and saliva trap may be provided depending upon the design.

Oxygen-generating type. Water vapor in the exhaled breath reacts with chemical in the canister to release O₂ to the breathing bag. The wearer inhales from the bag through a corrugated tube and one-way check valve at the facepiece. Exhaled air passes through a second check valve breathing tube assembly into the canister. The O₂ release rate is governed by the volume of exhaled air. CO₂ is removed by the canister fill.

Open-circuit SCBA (compressed air, compressed oxygen, liquid air, or liquid oxygen):

Demand type (equipped with a demand valve that is activated on initiation of inhalation and permits the flow of breathing atmosphere to the facepiece. On exhalation, pressure in the facepiece becomes positive and the demand valve is deactivated). The demand valve permits oxygen or air flow only during inhalation. Exhaled breath passes to ambient atmosphere through a valve(s) in the facepiece. A bypass system is provided in case of regulator failure except on escape-type units.

Pressure-demand type (a small positive pressure is maintained at all times in the facepiece by a spring-loaded or balanced regulator and exhalation valve). Equipped with full

facepiece only. Positive pressure is maintained in the facepiece at all times. The wearer usually has the option of selecting the demand or pressure-demand mode of operation.

(2) **Hose mask and air-line respirator.**

Hose mask. Equipped with full facepiece, nonkinking breathing tube, rugged safety harness and a large diameter heavy-duty nonkinking air supply hose. The breathing tube and hose are securely attached to the harness. A check valve allows airflow only toward the facepiece. The facepiece is fitted with an exhalation valve. The harness has provision for attaching a safety line:

Hose mask with blower. Air is supplied by a motor-driven or hand-operated blower. The wearer can continue to inhale through the hose if the blower fails. Up to 300 feet of hose length is permissible.

Hose mask without blower. The wearer provides motivating force to pull air through the hose. The hose inlet is anchored and fitted with a funnel or like object covered with a fine mesh screen to prevent entrance of coarse particulate matter. Up to seventy-five feet of hose length is permissible.

Air-line respirator. Respirable air is supplied through a small diameter air-line from a compressor or compressed air cylinders. The air-line is attached to the wearer by belt and can be detached rapidly in an emergency. A flow-control valve or orifice is provided to govern the rate of airflow to the wearer. Exhaled air passes to the ambient atmosphere through a valve(s) or opening in the enclosure (facepiece, hood, suit). Up to 250 feet of air-line is permissible:

Continuous-flow class. Equipped with a half-mask or full facepiece, or a helmet (abrasive blasting) or hood covering the wearer's head and neck. At least four cubic feet of air per minute to tight-fitting facepieces and six cubic feet per minute to loose-fitting hoods and helmets shall be required.

Demand type (Equipped with a demand valve that is activated on initiation of inhalation and permits the flow of breathing atmosphere to the facepiece. On exhalation, pressure in the facepiece becomes positive and the demand valve is deactivated). Equipped with a half-mask or full facepiece. The demand valve permits flow of air only during inhalation.

Pressure-demand type (A small positive pressure is maintained at all times in the facepiece by a spring-loaded or balanced regulator and exhalation valve). Equipped with a half-mask or full facepiece. A positive pressure is maintained in the facepiece at all times.

Supplied air suit. A form of continuous air-line respirator (see air-line respirator above). The suit is one or two piece and of leak-resistant material. Air is supplied to the suit through a system of internal tubes to the head, trunk, and extremities. Air exhausts through valves located in appropriate parts of the suit.

(3) *Combination self-contained and air-line respirators.* Normally a demand or pressure-demand type air-line respirator with full or half-mask facepiece, together with a small compressed-air cylinder to provide air if the normal supply fails. Wearer immediately returns to a respirable atmosphere if the normal air supply fails.

b. Air-purifying respirators. Half-mask, full facepiece, or mouthpiece respirator equipped with air-purifying units to remove gases, vapors, and particulate matter from the ambient air prior to inhalation. Some air-purifying respirators are blower-operated and provide respirable air to the facepiece (or hood) under a slight positive pressure.

(1) *Gas- and vapor-removing respirators.* Packed sorbent beds (cartridge or canister) remove single gases or vapors (for example, chlorine gas), a single class of gases or vapors (for example, organic vapors) or a combination of two or more classes of gases and vapors (for example, acid gases, organic vapors, ammonia, and carbon monoxide) by absorption, adsorption, chemical reaction or catalysis or a combination of these methods:

Full facepiece respirator (gas mask). Equipped with a single large chin canister or harness mounted canister with breathing tube and inhalation and exhalation valves. Canisters come in the "super" size, "industrial" size (regular), and chin style. The service life is approximately proportional to the canister size for a given type of canister.

Canisters for protecting against CO have an indicator or timer that shows when the canister shall be changed. Canisters are marked in bold letters with the contaminant against which they protect and are color coded for quick identification according to the American National Standard Identification of Gas Mask Canisters, K13.1-1967 (see Chart 2). The maximum concentration in which the canister can be safely used is indicated on the label.

Half-mask respirator (chemical-cartridge respirator). Equipped with one or more cartridge and exhalation and inhalation valves.

Mouthpiece respirator. A compact device designed for quick application when the atmosphere unexpectedly is contaminated with a hazardous material. Normally consists of a housing with a mouthpiece and a single cartridge, a nose clamp, exhalation and inhalation valves, and a neckband.

(2) *Particulate-removing respirators.* Filter media in pads, cartridges, or canisters remove dust, fog, fume, mist, smoke or spray particles. Filters are designed to remove a single type of particle (silica dust) or classes of particles (dusts and fumes). Filters may be replaceable or a permanent part of the respirator. Some filters can be used only once; others are reusable and should be cleaned according to the manufacturer's instructions:

Full facepiece respirator. Normally equipped with a high-efficiency filter canister designed to protect against hazardous particulates.

Equipped with inhalation and exhalation valves.

Half-mask respirator. Normally equipped with one or two dust, mist or fume filters designed to protect against nuisance and low to moderate toxicity dust, fumes, and mists, an exhalation valve, and (normally) inhalation valves. A knitted fabric cover is sometimes worn on dust respirators to decrease discomfort.

Mouthpiece respirator. Infrequently used as a particulate respirator.

(3) *Combination gas, vapor, and particulate-removing respirators.* Some canisters and cartridges contain both filters and sorbents to provide protection against contaminants. Some filters are designed to be attached to a sorbent cartridge as a prefilter (for example, for paint spray operation).

c. Combination atmosphere-supply and air-purifying respirators. These provide the wearer the option of using either of two different modes of operation. They may be an air-line respirator with an air-purifying attachment to provide protection in the event the air supply fails or an air-purifying respirator with a small air cylinder in case the atmosphere unexpectedly exceeds safe conditions for use of an air-purifying respirator.

d. Atmosphere-supplying respirators capabilities and limitations. Atmosphere-supplying respirators provide protection against oxygen deficiency and most toxic atmospheres. The breathing atmosphere is independent of ambient atmospheric conditions.

General limitations: Except for the supplied-air suit, no protection is provided against skin irritation by materials such as ammonia HCl, or against sorption of materials such as HCN, tritium, or organic phosphate pesticides through the skin. Facepieces present special problems to individuals required to wear prescription lenses.

(1) *Self-contained breathing apparatus (SCBA).* The wearer carries his own breathing atmosphere. Use is permissible in atmospheres immediately dangerous to life or health.

Limitations: The period over which the device will provide protection is limited by the amount of air or oxygen in the apparatus, the ambient atmospheric pressure (service life is cut in half by a doubling of the atmospheric pressure), and work load. A warning device shall be provided to indicate to the wearer when the service life has been reduced to a low level. Some SCBA devices have a short service life (few minutes) and are suitable only for escape (self-rescue) from an irrespirable atmosphere. Chief limitations of SCBA devices are their weight or bulk or both, limited service life, and the training required for their maintenance and safe use:

Closed-circuit SCBA. The closed circuit operation conserves oxygen and permits longer service life.

Open-circuit SCBA—demand and pressure demand. The demand type produces a negative pressure in the facepiece on inhalation

whereas the pressure-demand type maintains a positive pressure in the facepiece and is less apt to permit inward leakage of contaminants.

(2) *Hose mask or air-line respirator.* The respirable air supply is not limited to the quantity the individual can carry, and the devices are lightweight and simple.

Limitations: The wearer is restricted in movement by the hose or air-line and must return to a respirable atmosphere by retracing his route of entry. The hose or air-line is subject to being severed or pinched off:

Hose masks:

Hose mask with blower. If the blower fails, the unit still provides protection, although a negative pressure exists in the facepiece during inhalation. Use is permissible in atmospheres immediately dangerous to life or health.

Hose mask without blower. Limited to use in atmospheres from which the wearer can escape unharmed without aid of the respirator.

Air-line respirators (continuous flow, demand and pressure-demand types). The demand type produces a negative pressure in the facepiece on inhalation whereas continuous flow and pressure-demand types maintain a positive pressure in the facepiece at all times and are less apt to permit inward leakage of contaminants.

Limitations: Air-line respirators are limited to use in atmospheres not immediately dangerous to life or health except under conditions specified in immediately dangerous atmospheres and use in dangerous atmospheres. Air-line respirators provide no protection if the air supply fails.

Supplied-air suit. These suits protect against atmospheres that affect the skin or mucous membranes or that may be absorbed through the unbroken skin.

Limitations: Some contaminants, such as tritium, may penetrate the suit material and limit its effectiveness. Other contaminants such as flourine, may react chemically with the suit material and damage it. See absorption through or irritation of the skin.

These suits are limited in use to atmospheres not immediately dangerous to life or health except under the conditions specified in immediately dangerous atmospheres and use in dangerous atmospheres.

(3) *Combination self-contained and air-line respirators.* The equipping of an air-line respirator with a small cylinder of compressed air to provide an emergency air supply qualifies the respirator for use in immediately dangerous atmospheres. See immediately dangerous atmospheres.

e. Air-purifying respirators capabilities and limitations. General limitations: Air-purifying respirators do not protect against oxygen-deficient atmospheres nor against skin irritation by, or sorption through the skin of, airborne contaminants. See oxygen-deficient atmospheres and absorption through or irritation of the skin.

The maximum contaminant concentration against which an air-purifying respirator will protect is determined by the designed efficiency and capacity of the cartridge, canister, or filter. For gases and vapors and for particles having a TLV of less than 0.1 mg/m³, the maximum concentration for which the air-purifying unit is designed is specified on the label. Respirators without a blower to maintain a constant positive pressure within the facepiece will not provide the maximum design protection specified unless the facepiece is carefully fitted to the wearer's face to prevent inward leakage. See facepiece fit tests and procedures. The time period over which protection is provided is dependent on canister, cartridge, or filter type, concentration of contaminant, and the wearer's respiratory rate.

The proper type of canister, cartridge, or filter shall be selected for the particular atmosphere and conditions. Air-purifying respirators generally cause discomfort and objectionable resistance to breathing although these problems are minimized in blower-operated units. Respirator facepieces present special problems to individuals required to wear prescription lenses. These devices do have the advantage of being small, light, and simple in operation.

(1) *Gas- and vapor-removing respirators.* Additional limitations: No protection is provided against particulate contaminants, unless specified on canister or cartridge label. A rise in canister or cartridge temperature indicates that a gas or vapor is being removed from the inspired air. This is not a reliable indicator of canister performance. An uncomfortably high temperature indicates a high concentration of gas or vapor and requires an immediate return to fresh air:

Full facepiece respirator (gas mask). Should avoid use in atmospheres immediately dangerous to life or health if the contaminant(s) lacks sufficient warning properties (that is, odor or irritation).

Half-mask respirator (chemical-cartridge respirator). Shall not use in atmospheres immediately dangerous to life or health and should be limited to low concentrations of gases and vapors. A fabric covering shall not be worn on the facepiece since it will permit gases and vapors to pass.

No protection is provided to the eyes.

Mouthpiece respirator (chemical cartridge). Shall not be used in atmospheres immediately dangerous to life or health. Mouth breathing prevents detection of contaminants by odor. The nose clip shall be securely in place to prevent nasal breathing.

No protection is provided to the eyes.

Self-rescue mouthpiece respirator. Designed for self-rescue from immediately dangerous atmospheres of gases and vapors. Mouth breathing prevents detection of contaminants by odor. The nose clip shall be securely in place to prevent nasal breathing.

No protection is provided to the eyes.

(2) Particulate-removing respirators.

Additional limitations: Protect against non-volatile particles only. No protection against gases and vapors.

The filter shall be replaced or cleaned when breathing becomes difficult due to plugging by retained particles.

These respirators shall not be used during shot and sand blasting operations. Abrasive-blasting respirators shall be used.

Full facepiece respirator. Should avoid use in atmospheres immediately dangerous to life or health if the contaminant(s) lacks sufficient warning properties (that is, odor or irritation).

Half-mask respirator. Shall not be used in atmospheres immediately dangerous to life or health. A fabric covering on the facepiece is permissible only in atmospheres of coarse dusts and mists of low toxicity.

No protection is provided to the eyes.

Mouthpiece respirator (filter). Shall not be used in atmospheres immediately dangerous to life or health. Mouth breathing prevents detection of contaminants by odor. The nose clip shall be securely in place to prevent nasal breathing.

No protection is provided to the eyes from irritating aerosols.

Self-rescue mouthpiece respirator (filter). Designed for self-rescue from atmospheres having immediately dangerous concentrations of toxic particles. Mouth breathing prevents detection of contaminants by odor. The nose clip shall be securely in place to prevent nasal breathing.

No protection is provided to the eyes from irritating aerosols.

(3) Combination particulate and vapor- and gas-removing respirators. The advantages and disadvantages of the component parts of the combination respirator as described above will apply.

f. Combination atmosphere-supplying and air-purifying respirators capabilities and limitations. The advantages and disadvantages, expressed above, of the mode of operation being used will govern. The mode with the greater limitations (air-purifying mode) will mainly determine the overall capabilities and limitations of the respirator since the wearer may for some reason fail to change the mode of operation even though conditions would require such change.

4.7(3) Requirements for respirators. Respirators of all types should be capable of providing an adequate degree of respiratory protection against given atmospheric contaminants when the proper type has been chosen and when it is maintained and used correctly. Specific requirements for most of the types of respirators used in industry in the United States of America have been set up by the Federal Bureau of Mines. These requirements are published as Bureau of Mines Schedules.

Each respirator that has been approved by the Bureau of Mines has met the requirements of the pertinent schedule that was in effect

at the time of the approval. In general, each revision of the Bureau of Mines schedule makes these requirements more severe. A Bureau of Mines approval on a respirator remains in effect even though the schedule under which it was approved has been revised one or more times since then. Hence, if the user wishes to check on the minimum performance that he may expect from the respirator, he should consult the schedule or revision thereof which is shown in the list of schedules as being in effect when the approval was granted.

4.7(4) Selection of respirators.

a. General considerations. In choosing a respirator to be used for respiratory protection in any given situation, the following factors should be considered: (1) The nature of the hazard; (2) the severity of the hazard; (3) the type of contaminant; (4) the concentration of the contaminant; (5) the period for which respiratory protection must be afforded; (6) the location of the contaminated area with respect to a source of respirable air; (7) the expected activity of the wearer; and (8) the operating characteristics and limitations of the available respirators. Chart I summarizes the hazards and the respirators that are designed specifically to afford respiratory protection against them. By reference to this and by considering the foregoing factors, the user can determine some types of the respirators that should be used. The self-contained breathing apparatus and the hose mask with blower would give respiratory protection against any of the hazards listed, but these devices are not included in the list of respirators that could be used in the less hazardous situations because their use would amount to "over-engineering."

Even though most of the factors in 4.7(4) "a" are interrelated, a brief discussion of each follows:

(1) *Nature of the hazard.* The user should determine whether or not the atmosphere is deficient in oxygen, and whether the contaminant is gaseous or particulate, or a combination of the two.

(2) *Severity of the hazard.* The user should determine whether or not the atmosphere is immediately dangerous to life. This is discussed under classification of hazards in 4.7(1).

(3) Type of contaminant.

Gaseous contaminant. Where the contaminant is gaseous, the user should determine whether it is an acid gas, an organic vapor, ammonia, carbon monoxide, or a mixture of two or more of these gaseous contaminants. This information is essential to the choice of the proper gas mask or chemical-cartridge respirator because the different types of gases require different absorbents or combinations of absorbents to remove them from the inspired air.

Particulate contaminant. Where the contaminant is particulate, the user should know its physical form; that is, whether it is a dust, fume, or mist. Furthermore, he should know whether it is a toxic type (containing, for

instance, arsenic, antimony, cadmium, or lead), a pneumoconiosis-producing type (containing, for instance, asbestos or free silica), or a type having a low order of toxicity and being nonfibrosis-producing (containing, for instance, flour or wood). This information is essential to the choice of the proper dispersoid respirator, as a respirator designed to protect against one type of particulate matter does not necessarily afford adequate protection or service life against the other types.

(4) *Concentration of contaminant.*

Gaseous contaminant. Where the contaminant is gaseous, the maximum expected concentration of the gas should be known. Where this is above three percent by volume of ammonia gas, or two percent by volume of other gases, a gas mask is not adequate and should not be used. If it is above 0.1 percent by volume (1,000 ppm) of organic vapors, and organic-vapor chemical-cartridge respirator is not adequate and should not be used.

Particulate contaminant. Where the contaminant is particulate, the proper type of dispersoid respirator may give an adequate degree of protection, yet its service life may be too short to be practicable or economical. That is, the filter may plug too readily with a rapid increase in the inhalation resistance, thus necessitating frequent changing or cleaning of the filter material. Where practicable, an air-line respirator should be used in high concentrations of particulate matter.

(5) *Period of required respiratory protection.* The period of respiratory protection required has considerable bearing on the decision about which type of respirator to use in any given situation. The self-contained breathing apparatus, the gas mask, and the chemical-cartridge respirator provide respiratory protection for a limited period, whereas the hose mask with blower, the air-line respirator, and the abrasive-blasting respirator do so for an unlimited period; thus, for protracted periods of use, the latter types offer some advantages.

(6) *Location of contaminated area with respect to source of respirable air.* This is a factor that is frequently overlooked when choosing a respirator. In using a hose mask, air-line respirator, or abrasive-blasting respirator, the distance that the wearer can go into a contaminated atmosphere is limited by the length of the hose connected to the source of respirable air. Furthermore, the presence of the hose requires that he enter and leave the area by the same route. When wearing a self-contained breathing apparatus or a gas mask, a person may leave the contaminated area by another exit, but he should make certain that the device will afford protection for a period adequate for him to reach fresh air, taking into account possible delays. For instance, in mine-rescue work, the maximum distance from fresh air that a crew wearing two-hour self-contained breathing apparatus should cover is 1,000 feet (2,000 feet round trip) under ideal conditions. This distance is decreased to not more than

fifty feet from fresh air if the crew has to crawl in a low passage.

(7) *Activity of the wearer.* In many instances, the respirator that would be first choice from the standpoint of respiratory protection or period of protection cannot be used because it would limit the activity of the wearer. For instance, a hose mask would not be practicable for use where the wearer has to weave in and out of a series of obstructions such as pipes because of the difficulty of pulling the heavy hose after him and his inability to escape quickly to fresh air in event of danger. An air-line respirator would likewise be rather impracticable for use where the wearer must be moving about constantly in the contaminated area, or going from one room to another, because of the inconvenience and tripping hazard of the air-supply hose.

The activity of the wearer has a marked effect on the life to be expected from a self-contained breathing apparatus, gas mask, chemical-cartridge respirator, or dispersoid respirator. The volume of air breathed by a man walking at a rate of four miles per hour is more than three times that breathed when he is standing still. Hence, the supply of oxygen in a self-contained breathing apparatus is used up faster, the absorbent capacity of a gas-mask canister or a chemical cartridge is exhausted faster, and the filter of a dispersoid respirator would be plugged faster while the wearer is exercising than when he is at rest.

(8) *Operating characteristics and limitations of the available respirators.* The operating characteristics and limitations of respirators have been discussed in 4.7(2).

4.7(5) *Use and maintenance of respirators.*

a. *General considerations.* Respirators are used to supplement other methods of control of air-borne contaminants rather than to substitute for them. Every effort should be made to prevent the dissemination of contaminants into the breathing zones of the workers. In some instances, it is necessary to use respirators only until these control measures have been taken; in others, such measures are impracticable, and the continued use of respirators is necessary.

b. *Precautions to be taken in the use of respirators.*

(1) *Precautions to be taken in the use of a self-contained breathing apparatus.* The wearer of a self-contained breathing apparatus should be physically sound and fit and should be thoroughly trained in the construction, testing, use, care, and limitations of the apparatus before he attempts to wear such apparatus in a hazardous situation.

Make certain that the self-contained breathing apparatus is in good operating condition.

Make certain that the apparatus is capable of supplying air or oxygen for the period that the wearer must remain in the contaminated area.

Adjust the apparatus to the wearer and test for tightness according to the manufacturer's instructions.

If the wearer is to enter a confined space containing an atmosphere that is extremely hazardous, connect a strong life line to his body. This will serve as a means of guiding him to the exit; as a means of transmitting prearranged signals between him and the men at the fresh-air base; and as a means of aiding in rescue operations in case of an accident or emergency. This life line should be held by two attendants, at least one of whom is wearing a similar apparatus.

Enter the contaminated area cautiously, and, if the contaminant is detected by odor, taste, or eye, nose, or throat irritation, return to fresh air immediately and ascertain the cause.

Bear in mind the time limitations of the apparatus and allow an adequate margin of time for the return to fresh air.

The mouthpiece and nose clip, or the facepiece, should not be removed until the wearer is certain that he is in respirable air.

(2) *Precautions to be taken in the use of a gas mask.*

Make certain that the gas mask is in good operating condition.

Adjust the canister harness on the body so that, when the facepiece is put on, there is some slack in the breathing tube when the wearer's head is in the normal position.

Adjust the facepiece to make a gastight fit on the wearer's face. There are two means of testing a facepiece for a gastight fit: Close off the exhalation valve and exhale gently into the facepiece. If a slight positive pressure can be built up in the facepiece without any indication of outward leakage of air between the facepiece and the face, it is adjusted properly. Close off the breathing tube, inhale so that the facepiece starts to collapse, and hold the breath for about ten seconds. If the facepiece stays in its partially collapsed condition and no inward leakage of air is detected, it is adjusted properly.

Test the complete gas mask for gastightness by closing off the air-intake at the bottom of the canister, either with the palm of the hand or with the bottom canister seal, and inhaling as above.

This test checks the gastightness of the canister or timer gaskets and of the connection between the breathing tube and the canister or timer.

Make certain that the contaminated atmosphere is not deficient in oxygen.

Enter the contaminated area cautiously. If the odor of the contaminated is noted, return to fresh air immediately and ascertain the cause of leakage.

Make certain that the canister has enough residual life to give respiratory protection for the period that the wearer expects to be in the contaminated area. It is good practice to attach a fresh canister to the mask before entering an extremely hazardous atmosphere, especially one containing a gas that has poor warning properties, such as methyl bromide.

The facepiece should not be removed or fresh canisters attached until the wearer is certain that he is in respirable air.

After leaving the contaminated area, replace the bottom seal on the canister to prevent deterioration of the canister contents. This is particularly important in the case of universal gas-mask canisters.

Where the contaminant is a single gas or vapor, or a mixture of two or more gases or vapors of the same type, longer service time will be obtained if a canister is used that is designed especially for protection against the contaminant than would be obtained if a universal gas-mask canister were used. Firemen generally use the universal gas-mask canister because they are never certain what gases they might encounter.

(3) *Precautions to be taken in the use of a hose mask with blower.* Make certain that the hose mask is in good operating condition. Set the blower in an assured source of respirable air.

Connect the proper length of hose (not over 150 feet) to the blower and to the facepiece, making sure that all gaskets are in place and that the connections are tight. Where more than one hose is to be used, each should originate at the blower.

Before entering a confined space such as a tank or sewer containing an atmosphere that is extremely hazardous, connect a strong life line to the D-ring of the body harness. This life line should be held by two attendants so that the wearer can be removed from the contaminated atmosphere in case of accident or emergency.

Operate the blower for a minute or two at a rapid rate to blow any dust out of the hose and to make sure that air is being delivered to the facepiece.

Adjust the body harness securely to the wearer.

Adjust the facepiece to the wearer so that it makes a gastight fit with his face. There are two means of testing for a satisfactory facepiece fit: Close off the exhalation valve and exhale gently into the facepiece. If a slight positive pressure can be built up in the facepiece without any indication of outward leakage of air between the facepiece and the face, it is adjusted properly. Close off the breathing tube or tubes, inhale so that the facepiece starts to collapse, and hold the breath for about ten seconds. If the facepiece stays in its partially collapsed condition and no inward leakage of air is detected, it is adjusted properly.

Operate the blower, and adjust the flow of air to the wearer's satisfaction. The blower should be operated continuously during the use of the mask.

Check on the prearranged signals between the wearer and the blower operator.

Enter the contaminated area cautiously.

Be careful that the hose is not endangered by sharp edges or falling objects, and remember that the wearer must retrace his steps and leave by the same route that he entered.

If the continuous flow of air to the facepiece is interrupted, the wearer should return to fresh air and ascertain the cause.

The facepiece should not be removed until the wearer is certain that he is in respirable air.

(4) *Precautions to be taken in the use of a hose mask without blower.* Make certain that the hose mask is in good operating condition.

Securely fasten the air-intake of the respirator in an assured source of respirable air.

Connect the proper length of hose (not over seventy-five feet) to the air-intake and to the facepiece, making sure that all gaskets are in place and that the connections are tight.

Adjust the body harness to the wearer.

Adjust the facepiece to the wearer so that it makes a gastight fit with his face.

There are two means of testing for a satisfactory facepiece fit: Close off the exhalation valve and exhale gently into the facepiece. If a slight positive pressure can be built up in the facepiece without any indication of outward leakage of air between the facepiece and the face, it is adjusted properly. Close off the breathing tube or tubes, inhale so that the facepiece starts to collapse, and hold the breath for about ten seconds. If the facepiece stays in its partially collapsed condition and no inward leakage of air is detected, it is adjusted properly and is gastight.

Make certain that the atmosphere to be entered is not so hazardous that the wearer cannot escape unharmed without the aid of the respirator.

Enter the contaminated area cautiously and leave by the same route.

(5) *Precautions to be taken in the use of an air-line respirator.* Make certain that the air supply is respirable. Close attention should be paid to the location of the intake to the air-supply device to make certain that the entering air is not contaminated. A suitable filter should be provided to remove objectionable odors, oil and water mist, and rust particles from the air delivered to air-supply lines. A suitable reducing type or demand-type valve and an excess-pressure relief valve should also be provided. For supplying respirable air, the use of low-pressure externally lubricated blowers is preferable to high-pressure internally lubricated compressors, since the latter may add objectionable odors to the air and may produce carbon monoxide upon overheating. Internally lubricated compressors should be equipped with an automatic shutoff which is actuated if they become overheated.

Make certain that the air-line respirator is in good operating condition.

Attach the proper length of air-supply hose to the source of compressed air and to the breathing tube.

Adjust the pressure of the air at the inlet to the air-supply hose so that it is within the proper pressure range.

Adjust the facepiece, helmet or hood to the wearer according to the manufacturer's instructions. A full facepiece or half-mask facepiece should be adjusted so that all the excess

air leaves the facepiece through the exhalation valve and none is felt leaking out under the edge of the facepiece.

When the rate of flow of air into the facepiece, helmet, or hood seems to be excessive, the wearer may decrease the flow of air by means of the air-regulating valve with which most air-line respirators are equipped. However, to prevent the contaminant in the surrounding air from reaching the wearer's breathing zone, the flow of air should not be decreased below four cubic feet per minute for facepieces, or below six cubic feet per minute for helmets or hoods. Hence, the air-regulating valve should be used judiciously on an air-line respirator.

Enter the contaminated area cautiously and leave by the same route.

Each air-line respirator is equipped with a quick-acting detachable coupling by means of which the wearer can quickly disconnect the respirator from the air-supply line to facilitate escape in an emergency such as fire. The wearer should practice using this coupling before wearing the respirator in a contaminated atmosphere.

(6) *Precautions to be taken in the use of an abrasive-blasting respirator.* The precautions to be taken in the use of an abrasive-blasting respirator are the same as those given for the air-line respirator, with the following additional precautions.

Make certain that the shatterproof eyepiece and the protective coverglass (if furnished) are in place. Under no circumstances should regular window glass be used in place of the shatterproof eyepiece. Clean the inner and outer surfaces of all eyepieces.

Make certain that the protective wire screen or perforated-metal eyepiece is clean and in place.

(7) *Precautions to be taken in the use of a chemical-cartridge respirator.* Make certain that the atmosphere to be entered is not dangerous to life.

Make certain that the respirator is in good operating condition, that the gaskets are in place, and that the proper chemical cartridges are securely mounted in the respirator.

Adjust the respirator to the wearer's face so that it makes a gastight fit with his face. There are two means of testing for a gastight fit: Close off the exhalation valve and exhale gently into the facepiece. If a slight positive pressure can be built up in the facepiece without any indication of outward leakage of air between the facepiece and the face, it is adjusted properly. Close off the inlets to the facepiece by cardboard discs or stoppers usually furnished by the manufacturer, inhale so that the facepiece starts to collapse, and hold the breath for about ten seconds. If the facepiece remains in its partially collapsed condition and no inward leakage of air is detected, it is adjusted properly. If the second method is used, the cardboard discs or stoppers must be removed and the cartridges as-

sembled with the facepiece without disturbing the fit of the facepiece on the wearer's face.

Enter the contaminated area cautiously.

When leakage of the contaminant is noted by the wearer, he should discard the used cartridges and replace them with fresh ones.

Knitted cotton cloth must never be used to cover the face-contacting edges of chemical-cartridge respirators, since the cloth cover is not gastight.

(8) *Precautions to be taken in the use of a dispersoid (dust, mist, or fume) respirator.* Make certain that the respirator is in good operating condition and that the proper filters are securely fastened in place.

Adjust the respirator to the wearer's face so that it makes a dust-tight fit with his face. There are two means of testing for a satisfactory facepiece fit: Close off the exhalation valve and exhale gently into the facepiece. If a slight positive pressure can be built up in the facepiece without any indication of outward leakage of air between the facepiece and the face, it is adjusted properly. Close off the inlets to the facepiece by cardboard discs or stoppers usually furnished by the manufacturer, inhale so that the facepiece starts to collapse, and hold the breath for about ten seconds. If the facepiece remains in its partially collapsed condition, and no inward leakage of air is detected, it is adjusted properly. If the second method is used, the cardboard discs or stoppers must be removed and the filters assembled with the facepiece without disturbing the fit of the facepiece on the wearer's face.

As the total amount of solid particulate matter removed from the inspired air by the filter increases, the resistance to inhalation increases and finally reaches a value such that the wearer is conscious of increased difficulty in breathing. At this time, disposable-type filters should be discarded and replaced by fresh filters, and recleanable-type filters should be cleaned in accordance with the manufacturer's instruction. Under no circumstances should respirator filters be washed or dry cleaned.

In atmospheres containing particulate matter that is irritating to the skin, or where excessive perspiration may occur, a knitted cotton cloth, furnished by the manufacturer, may be used over the edge of the facepiece to prevent contact between the rubber portion of the facepiece and the wearer's face. This must not be used on fume respirators.

When the facepiece is removed, the wearer may obtain visual evidence of the dust-tightness of the facepiece fit by looking at his reflection in a mirror and noting the presence or absence of dust streaks on that portion of his face that was covered by the facepiece.

c. *Instruction in the use of respirators.*

(1) *General considerations.* For the safe use of any device, it is essential that the user be properly instructed in its selection, use, and maintenance. This is particularly important with respect to respirators. Competent

persons should give such instruction to the supervisors of all groups who may be required to wear respirators at their work. The supervisors, in turn, should instruct their men. No person should be allowed to wear a respirator of any type until he has received such instruction. Such instruction should cover:

An explanation of the need for using the respirator.

Its operating principle.

Steps to be taken to assure that it is in good operating condition.

Proper adjustment of the respirator to the wearer.

Proper use and maintenance of the respirator.

The very presence of self-contained breathing apparatus, hose masks with blowers, or gas masks on the property of any organization is an indication that they are expected to be used in an emergency situation or in one that is dangerous to life. All persons who may have occasion to use these respirators, or cause them to be used, should be properly trained in their use before circumstances require that they use them to protect their lives and the property of their employer. In addition to this, efforts should be made to foresee possible emergencies and plans of action should be formulated so that when respiratory protection is needed, rescue or repair operations will proceed smoothly and safely.

Merely talking about such respirators as the self-contained breathing apparatus, the hose mask with blower, and the gas mask is not enough. The men should be given an opportunity to handle the respirator, have it fitted to them properly, test the gas-tightness of the facepiece fit, wear it in normal air for a period long enough for them to become familiar with it, and finally, they should actually wear it in an irrespirable atmosphere. Such an atmosphere may be created by burning a half-ounce formaldehyde candle in a room of about 4,000 cubic foot capacity. Not only would this atmosphere be irrespirable, but it would be irritating to the eyes. This atmosphere is similar to that used by the Bureau of Mines in the training of men in the use of the self-contained breathing apparatus. After a person has worn one of these devices for a prolonged period in this formaldehyde-air mixture without any ill effect, he need only remove the facepiece or nose clip momentarily to be convinced of the efficiency of the respirator. Such training breeds confidence in the trainees that should stand them in good stead in an emergency situation.

A less severe training atmosphere that can be built up in any room without damage to its contents, or to other people in the same building, may be prepared by vaporizing isoamyl acetate to the amount of 173 cubic centimeters per 1,000 cubic foot capacity of the room. The liquid isoamyl acetate is vaporized from a cloth wick placed in front of a fan in the room. This produces a concentration of about 1,000 parts of isoamyl acetate per

million parts of air (0.1 percent) by volume. If the odor of isoamyl acetate is detected by a person wearing an emergency-type respirator, he would be able to detect the odor of phosgene or chlorine if he entered a two-percent concentration of either of these gases while wearing the device. Isoamyl acetate vapor in this concentration is used by the Bureau of Mines as a preliminary means of testing the gastightness of gas mask facepieces before actually wearing them in highly toxic concentrations of gases.

d. Maintaining, cleaning, disinfecting, and storing respirators.

(1) *General considerations.* It is especially important that respirators be properly maintained and stored. The life of the wearer may be dependent on their proper functioning and ready availability. Adequate attention to cleaning and disinfecting is also required because the respiratory inlet coverings are worn on the face. Whenever possible, a centralized maintenance, cleaning, and storage station should be established to care for equipment of this type. It should be equipped adequately and manned by trained personnel.

(2) *Procedures applicable to all respirators.*

Inspection. All respirators should be inspected at regular intervals to make sure that they are ready for use. For respirators that are used and maintained daily, inspection becomes a rather automatic function; however, is often neglected for respirators that are stored throughout a plant to use in emergency situations. These devices should be checked as regularly as fire extinguishers; as a matter of fact, it is good practice to integrate these inspection and maintenance programs.

All rubber parts such as facepieces, mouthpieces, exhalation valves, breathing tubes, and headbands should be inspected carefully for signs of deterioration such as hardening, checking, or tackiness. During the inspection, time should be given to "working" the rubber between the fingers with a stretching and massaging action. This will reveal defects in rubber parts and prolong the life of non-defective parts.

A check should be made to see that all gaskets are present and that they are held in place tightly.

Metal parts should be checked for signs of corrosion, and plastic and glass parts for breakage.

Maintenance. When it is necessary to replace worn or deteriorated parts, only those made specifically for the device should be used and the repair work should be accomplished by experienced personnel. Makeshift repairs for respiratory protective equipment cannot be tolerated. After equipment that is used frequently is cleaned and disinfected, it should be repaired routinely; emergency equipment should be repaired immediately after inspection reveals the need for repairs.

Repairs to intricate parts should not be attempted unless adequate facilities and trained

personnel are available. For most users, it is preferable that parts of this type be replaced as a unit or returned to the manufacturer for repair.

Cleaning and disinfecting. Respiratory protective equipment should be cleaned and disinfected after each use. However, because of the wide variety of materials used in these devices, the manufacturer should be consulted for the cleaning and disinfecting method best suited to his products.

In general, facepieces and mouthpieces for respiratory protective devices are made from rubber or rubber-like compounds. Usually, these can be cleaned with detergent and lukewarm water by handbrushing or agitation in a washing machine. Formaldehyde, modified phenolics, hypochlorite, or quaternary ammonium compounds in the proper strength can be used to disinfect the parts. Normally all detergent is rinsed from the protective device before disinfecting; however, there are several combination cleaning and disinfecting materials available in both liquid and powder form which contain a detergent and quaternary ammonium salts and this permits combining the washing and disinfecting operations. After cleaning and disinfecting, the parts should be rinsed in clean water and dried quickly for most disinfectants. It may be desirable to rinse parts treated with quaternary ammonium compounds since their disinfectant properties will continue indefinitely and may not produce a skin irritation. After reassembly, the device should be placed in a clean and dust-tight container.

Hot water, steam, solvents, and ultraviolet light should be avoided in the cleaning and disinfecting of rubber parts because all have deteriorating effects. If paint or other difficult-to-remove substances are encountered, it is preferable that they be removed by mild caustic cleaners rather than by solvents.

Storage. All types of respirators should be stored in clean and dry compartments under conditions of moderate temperature. Most devices of this type are received in reusable cartons or cases and should be kept in these containers during the period of storage. Exposure to heat, sunlight, extreme cold, and excessive moisture is harmful to respiratory protective devices if the exposure continues over extended periods.

In some cases, it is necessary to locate respiratory protective devices at convenient stations throughout the work area for ready availability in the event of an emergency. Special care must be taken to insure adequate storage under these conditions. In some instances, it is necessary to construct special compartments to protect the equipment from the process materials as well as from the elements.

Additional emergency-type respiratory protective devices should be stored just outside the immediate danger area so that men can retreat to them and don them for judicious re-entry into the contaminated area to carry out rescue or repair operations.

No respirator can be adequately stored outside its carrying case or carton in a tool box or clothing locker.

(3) *Special procedures for maintaining, cleaning, disinfecting, and storing respirators.*

Self-contained breathing apparatus. In compressed-oxygen recirculating apparatus make sure the carbon dioxide removing chemical is replaced after use and that the oxygen cylinder is refilled to rated capacity in order to insure full service life. The cylinder pressure should be checked periodically and brought to rated pressure if necessary. The tightness of the high pressure and low pressure sides of the apparatus should be checked periodically following the manufacturer's instructions. In self-generating apparatus, periodic tightness tests as outlined by the manufacturer should be followed.

Hose masks. Check the blower periodically for proper operation. Check hose for wear and tear after each use and steam clean when necessary. Keeping hose capped when not in use will prevent entrance of dust or other contaminants.

Air-line respirators. The facepiece should be serviced after each use just as for all other respiratory protective equipment. The flow-control valves should be inspected after each use and cleaned and repaired if necessary. Chemical cartridges in the continuous-flow control-valve assemblies should be changed when necessary. Air-line hose should be checked for wear and tear after each use and be steam cleaned when necessary.

The air-supply system should be inspected routinely to insure continued proper functioning. Air compressors, air-cylinder manifold systems, pressure reducers, pressure-release valves, air-line filters, air-line instrumentation, and permanent piping and outlet fittings must be kept in good repair to assure satisfactory condition of the air reaching the breathing zone of the wearer.

Gas masks. Check the facepiece to be sure that (1) the eyepieces are not broken and that they are held firmly in place; (2) the rubber portion of the facepiece is flexible and free from cracks; (3) the head harness is flexible and that the straps and buckles are in good condition; (4) the exhalation valve is in place, works freely, and has no dirt on its contact

surfaces; (5) the breathing tube is flexible and free from cuts and that it is securely fastened to the canister neck or to the outlet of the timer; (6) the canister is of the proper type, is free from dents and rust spots, and is securely attached to the canister harness. If a timer is used, check to be sure that the gaskets are in place and are making proper contact, and that the timer is reset when a new canister is attached. Universal gas-mask canisters should be replaced after one year from date of breaking seal if not exhausted before this time. Canisters should be stored in a cool, clean, dry location and the stock rotated so that no canister remains in storage for more than four years before it is used.

Self-rescuers. Frequent inspection is the most important phase of the maintenance program with this type of equipment because the equipment is seldom used but must always be ready. The type which offers protection against carbon monoxide utilizes hopcalite in the chemical fill and must be protected from moisture to remain effective. Follow the manufacturer's recommendations for checking the moisture seal at regular and frequent intervals.

Dispersoid and chemical cartridge respirators. Mechanical filters of the "throw-away" type should be discarded when the breathing resistance becomes bothersome to the wearer. In most plants with centralized maintenance stations, the filters are destroyed and discarded at the time the respirator is serviced.

Some respirators employ recleanable filters, in which case the filters are cleaned when the respirator is being serviced.

Chemical cartridges should be changed when the wearer detects the odor or irritating effect of the contaminant. In plants with centralized maintenance stations, cartridges are sometimes discarded after a given period of use (based on group experience), but in most cases the wearer is responsible for discarding and replacing cartridges in his respirator.

Particular care should be exercised in the storage of chemical cartridges because they usually deteriorate if exposed to excess moisture and to gaseous air contaminants. Cartridges should not be stored in the area where it is necessary for the workmen to use chemical-cartridge respirators.

CHART I

GUIDE FOR SELECTION OF RESPIRATORS

Hazard	Respirator
Oxygen deficiency	Self-contained breathing apparatus. Hose mask with blower. Combination air-line respirator with auxiliary self-contained air supply or an air-storage receiver with alarm.
Gas and vapor contaminants Immediately dangerous to life or health	Self-contained breathing apparatus. Hose mask with blower. Air-purifying, full facepiece respirator with chemical canister (gas mask). Self-rescue mouthpiece respirator (for escape only). Combination air-line respirator with auxiliary self-contained air supply or an air-storage receiver with alarm.
Not immediately dangerous to life or health	Air-line respirator. Hose mask without blower. Air-purifying, half-mask or mouthpiece respirator with chemical cartridge.
Particulate contaminants Immediately dangerous to life or health	Self-contained breathing apparatus. Hose mask with blower. Air-purifying, full facepiece respirator with appropriate filter. Self-rescue mouthpiece respirator (for escape only). Combination air-line respirator with auxiliary self-contained air supply or an air-storage receiver with alarm.
Not immediately dangerous to life or health	Air-purifying, half-mask or mouthpiece respirator with filter pad or cartridge. Air-line respirator. Air-line abrasive-blasting respirator. Hose mask without blower.
Combination gas, vapor, and particulate contaminants Immediately dangerous to life or health	Self-contained breathing apparatus. Hose mask with blower. Air-purifying, full facepiece respirator with chemical canister and appropriate filter (gas mask with filter). Self-rescue mouthpiece respirator (for escape only). Combination air-line respirator with auxiliary self-contained air supply or an air-storage receiver with alarm.
Not immediately dangerous to life or health	Air-line respirator. Hose mask without blower. Air-purifying, half-mask or mouthpiece respirator with chemical cartridge and appropriate filter.

CHART II
COLOR CODE FOR GAS-MASK CANISTERS

Atmospheric Contaminants to be Protected Against	Colors Assigned*
Acid gases	White
Hydrocyanic acid gas	White with ½-inch green stripe completely around the canister near the bottom
Chlorine gas	White with ½-inch yellow stripe completely around the canister near the bottom
Organic vapors	Black
Ammonia gas	Green
Acid gases and ammonia gas	Green with ½-inch white stripe completely around the canister near the bottom
Carbon monoxide	Blue
Acid gases and organic vapors	Yellow
Hydrocyanic acid gas and chloropicrin vapor	Yellow with ½-inch blue stripe completely around the canister near the bottom
Acid gases, organic vapors, and ammonia gases	Brown
Radioactive materials, excepting tritium and noble gases	Purple (Magenta)
Particulates (dusts, fumes, mists, fogs, or smokes) in combination with any of the above gases or vapors	Canister color for contaminant, as designated above, with ½-inch gray stripe completely around the canister near the top
All of the above atmospheric contaminants	Red with ½-inch gray stripe completely around the canister near the top

*Gray shall not be assigned as the main color for a canister designed to remove acids or vapors.

NOTE: Orange shall be used as a complete body, or stripe color to represent gases not included in this table. The user will need to refer to the canister label to determine the degree of protection the canister will afford.

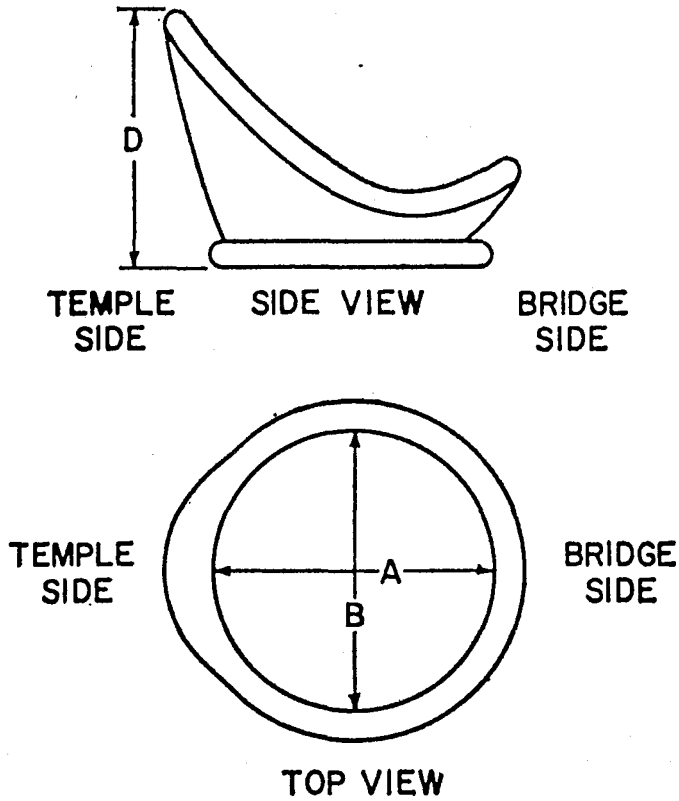


Fig. 1
Dimensions To Be Measured in
Heat Deformation Test

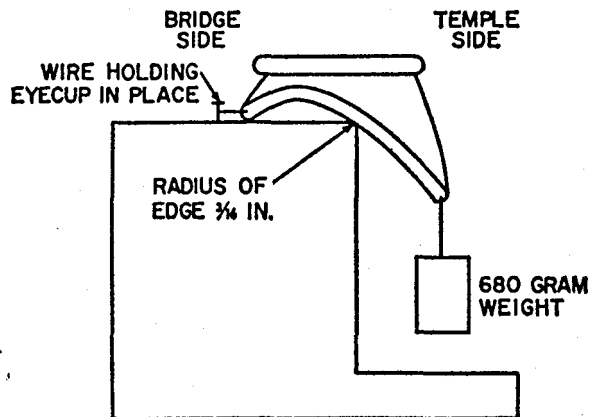
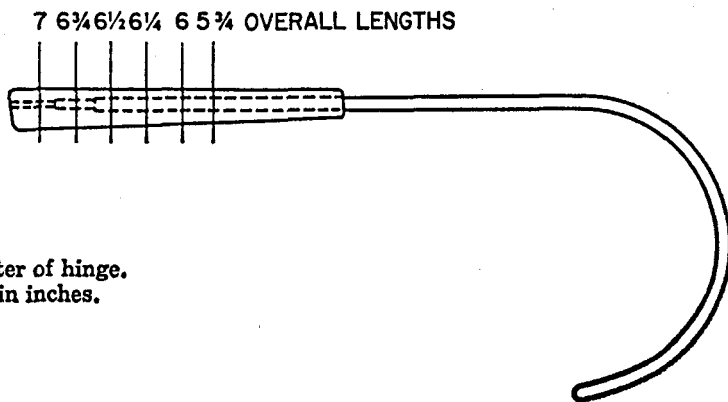
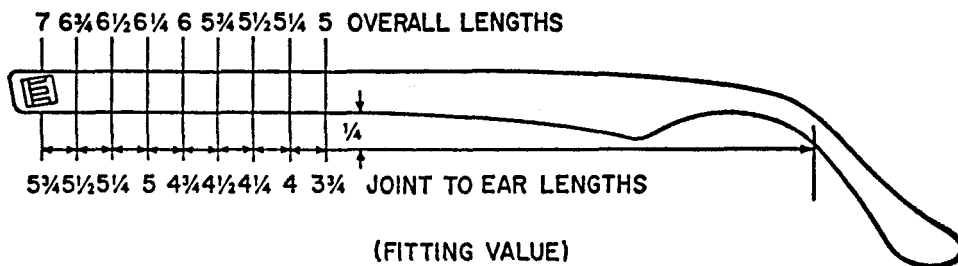


Fig. 2
Apparatus for Heat Deformation Test



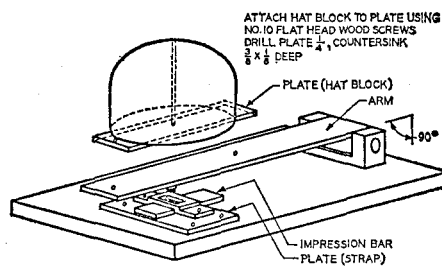
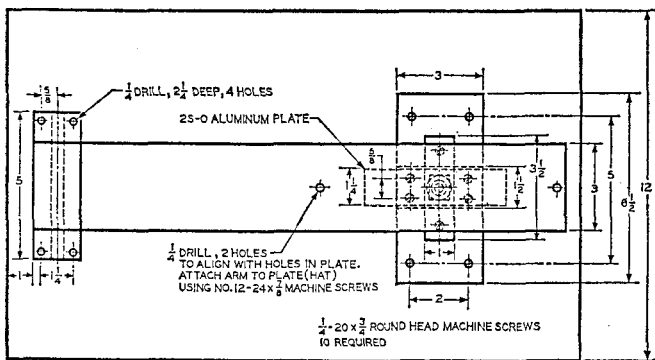
NOTE: Measured from center of hinge.
All dimensions are in inches.

Fig. 3
Cable Temples



NOTE: Measured from center of hinge.
All dimensions are in inches.

Fig. 4
Spatula Temples



THE COMBINED THICKNESS OF IMPRESSION BAR AND PLATE (STRAP) SHALL EQUAL 1/2

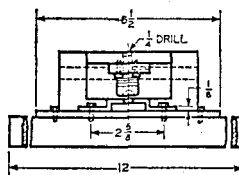
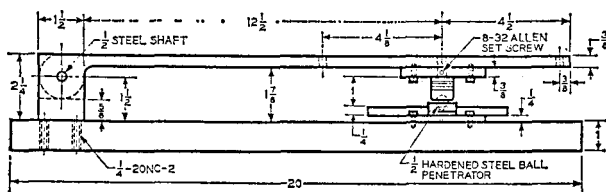
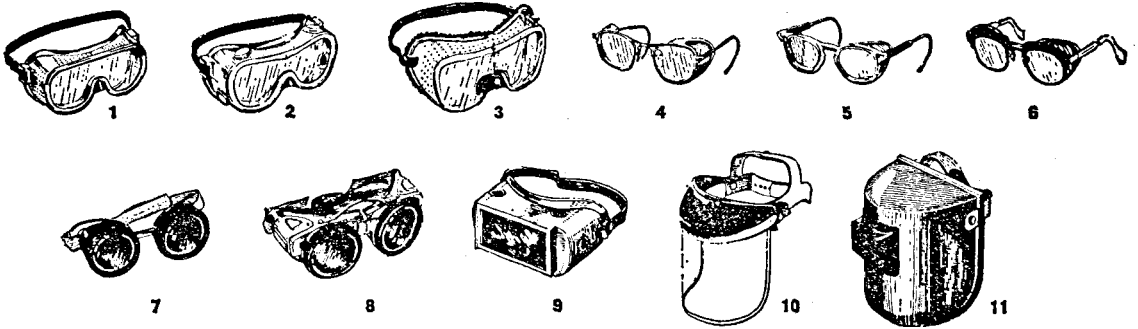


Fig. 5
Brinnell Hardness Penetrator Assembly

Fig. 6
Selection Chart

Recommended Eye and Face Protectors for Use in Industry, Schools, and Colleges



- 1. GOGGLES, Flexible Fitting, Regular Ventilation
- 2. GOGGLES, Flexible Fitting, Hooded Ventilation
- 3. GOGGLES, Cushioned Fitting, Rigid Body
- *4. SPECTACLES, Metal Frame, with Sideshields
- *5. SPECTACLES, Plastic Frame, with Sideshields
- *6. SPECTACLES, Metal-Plastic Frame, with Sideshields

- ** 7. WELDING GOGGLES, Eyecup Type, Tinted Lenses (Illustrated)
- 7A. CHIPPING GOGGLES, Eyecup Type, Clear Safety Lenses (Not Illustrated)
- ** 8. WELDING GOGGLES, Coverspec Type Tinted Lenses (Illustrated)
- 8A. CHIPPING GOGGLES, Coverspec Type, Clear Safety Lenses (Not Illustrated)
- ** 9. WELDING GOGGLES, Coverspec Type, Tinted Plate Lens
- 10. FACE SHIELD (Available with Plastic or Mesh Window)
- **11. WELDING HELMETS

*Non-sideshield spectacles are available for limited hazard use requiring only frontal protection.
**See appendix chart "Selection of Shade Numbers for Welding Filters."

APPLICATIONS		
OPERATION	HAZARDS	RECOMMENDED PROTECTORS: <small>Bold Type Numbers Signify Preferred Protection</small>
ACETYLENE—BURNING ACETYLENE—CUTTING ACETYLENE—WELDING	SPARKS, HARMFUL RAYS, MOLTEN METAL, FLYING PARTICLES	7, 8, 9
CHEMICAL HANDLING	SPLASH, ACID BURNS, FUMES	2, 10 (For severe exposure add 10 over 2)
CHIPPING	FLYING PARTICLES	1, 3, 4, 5, 6, 7A, 8A
ELECTRIC (ARC) WELDING	SPARKS, INTENSE RAYS, MOLTEN METAL	9, 11 (11 in combination with 4, 5, 6 , in tinted lenses, advisable)
FURNACE OPERATIONS	GLARE, HEAT, MOLTEN METAL	7, 8, 9 (For severe exposure add 10)
GRINDING—LIGHT	FLYING PARTICLES	1, 3, 4, 5, 6, 10
GRINDING—HEAVY	FLYING PARTICLES	1, 3, 7A, 8A (For severe exposure add 10)
LABORATORY	CHEMICAL SPLASH, GLASS BREAKAGE	2 (10 when in combination with 4, 5, 6)
MACHINING	FLYING PARTICLES	1, 3, 4, 5, 6, 10
MOLTEN METALS	HEAT, GLARE, SPARKS, SPLASH	7, 8 (10 in combination with 4, 5, 6 , in tinted lenses)
SPOT WELDING	FLYING PARTICLES, SPARKS	1, 3, 4, 5, 6, 10

Fig. 7
 "Lens in Frame" Test Block

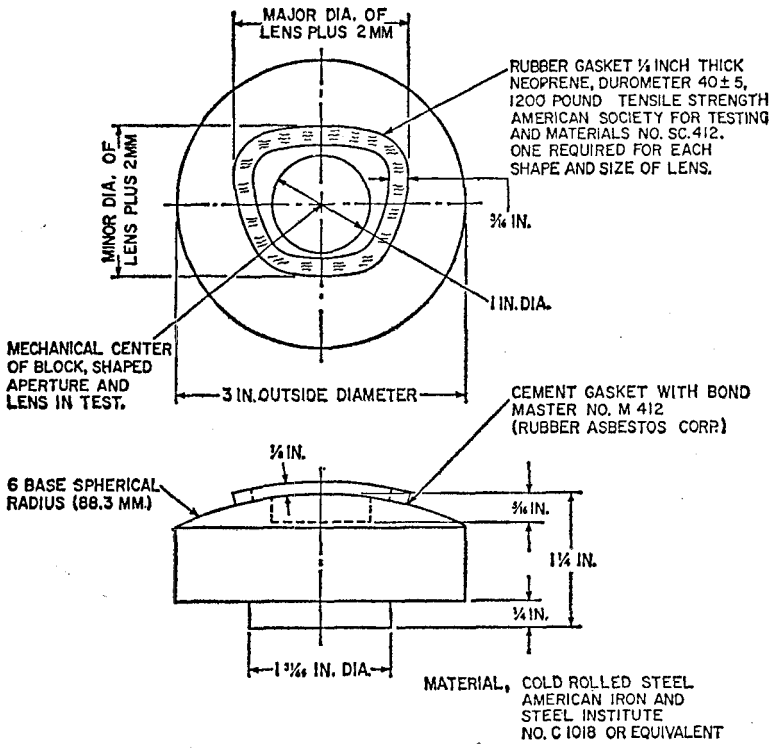
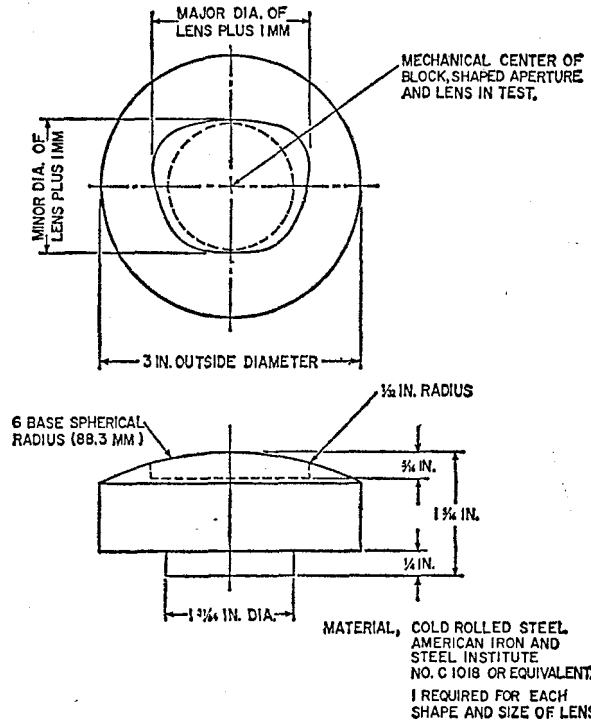
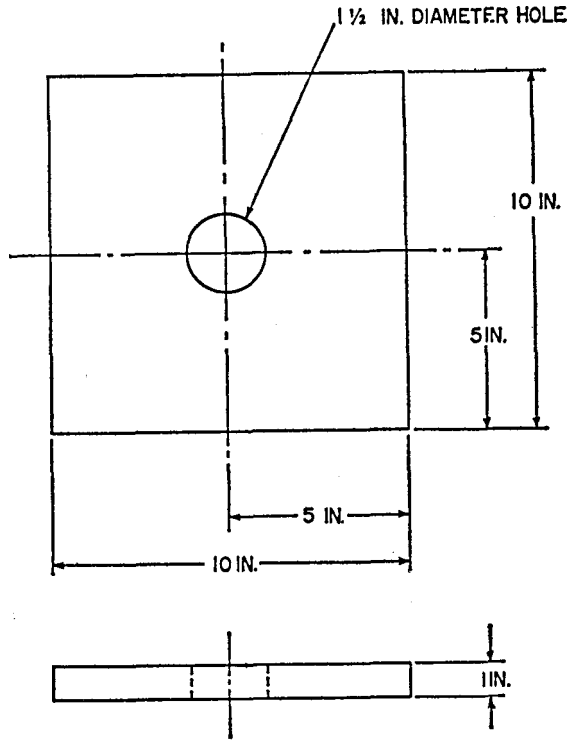


Fig. 8
 "Lens Only" Test Block

Fig. 9
Base Plate—One Required



MATERIAL, COLD ROLLED STEEL (GROUND STOCK)
AMERICAN IRON AND STEEL INSTITUTE
NO. C1018 OR EQUIVALENT.

Table 1
Transmittances and Tolerances in Transmittance of Various Shades of
Absorptive Lenses, Filter Lenses, and Plates

Shade Number	Optical Density			Luminous Transmittance			Maximum Infrared Transmittance	Maximum Spectral Transmittance in the Ultraviolet and Violet			
	Maximum	Standard	Minimum	Maximum	Standard	Minimum		313 mu	334 mu	365 mu	405 mu
				Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
1.5	0.26	0.214	0.17	67	61.5	55	25	0.2	0.8	25	65
1.7	0.36	0.300	0.26	55	50.1	43	20	0.2	0.7	20	50
2.0	0.54	0.429	0.36	43	37.3	29	15	0.2	0.5	14	35
2.5	0.75	0.643	0.54	29	22.8	18.0	12	0.2	0.3	5	15
3.0	1.07	0.857	0.75	18.0	13.9	8.50	9.0	0.2	0.2	0.5	6
4.0	1.50	1.286	1.07	8.50	5.18	3.16	5.0	0.2	0.2	0.5	1.0
5.0	1.93	1.714	1.50	3.16	1.93	1.18	2.5	0.2	0.2	0.2	0.5
6.0	2.36	2.143	1.93	1.18	0.72	0.44	1.5	0.1	0.1	0.1	0.5
7.0	2.79	2.571	2.36	0.44	0.27	0.164	1.3	0.1	0.1	0.1	0.5
8.0	3.21	3.000	2.79	0.164	0.100	0.061	1.0	0.1	0.1	0.1	0.5
9.0	3.64	3.429	3.21	0.061	0.037	0.023	0.8	0.1	0.1	0.1	0.5
10.0	4.07	3.857	3.64	0.023	0.0139	0.0085	0.6	0.1	0.1	0.1	0.5
11.0	4.50	4.286	4.07	0.0085	0.0052	0.0032	0.5	0.05	0.05	0.05	0.1
12.0	4.93	4.714	4.50	0.0032	0.0019	0.0012	0.5	0.05	0.05	0.05	0.1
13.0	5.36	5.143	4.93	0.0012	0.00072	0.00044	0.4	0.05	0.05	0.05	0.1
14.0	5.79	5.571	5.36	0.00044	0.00027	0.00016	0.3	0.05	0.05	0.05	0.1

This rule is intended to implement Chapter 88A of the Code of Iowa.

[Filed April 10, 1970]

EMPLOYMENT SECURITY COMMISSION

CHAPTER 1

EMPLOYER'S RECORDS AND REPORTS

1.1(96) Records to be kept by the employer.

1.1(1) Each employing unit having employment performed for it shall maintain records to show the information hereinafter indicated. Such records shall be kept in such form and manner that it will be possible from an inspection thereof to obtain the facts necessary to determine the eligibility of each employee as to his rights to benefits.

Such records shall be open to inspection and be subject to be copied by the commission and its authorized representatives at any reasonable time. Such records shall be kept for a period of five years after the calendar year in which the remuneration to which they relate was paid, or if not paid was due.

1.1(2) Such records shall show with respect to each employee unless the commission has ruled that his services do not constitute employment:

- a. Name of worker.
- b. Social security account number.

c. Date on which employee was hired, rehired or returned to work after a temporary layoff, and the date separated from work and the reason therefor.

d. Scheduled hours except for workers without a fixed schedule of hours, such as those working outside of the employer's establishment in such a manner that the employer has no definite knowledge of their working hours.

e. Total wages paid for employment in each pay period and the date of payment. For all pay periods ending in each quarter show separately: Money wages; the cash value of other remuneration.

Any special payment for services such as wages in lieu of notice, bonuses, gifts, prizes, show separately: Money payments; other remuneration and the nature of such payments.

Amounts paid to employees as allowance or reimbursement for traveling and other business expenses, and the amounts of such expenditures actually incurred and accounted for by him.

f. The state or states in which his services are performed; and if any of such services are performed outside of this state and are not incidental to the service within the state, his base of operations (or if there is no base of operations then the place from which such services are directed or controlled) and his residence (by state), and the name of the county in Iowa in which services were performed.

g. When the pay period covers services performed both in employment and in excluded work, show the hours and wages for employment under this Act and also hours and wages for excluded work.

h. For determining the worker's eligibility for partial benefits:

(1) Wages earned by weeks. [See 3.2(3) "b"]

(2) Whether any week was in fact a week of less than full-time work.

(3) Time lost, if any, by each worker due to his unavailability for work showing days and weeks in which such loss of time occurred.

1.1(3) Such records should show the total number of employees who performed service during each day.

1.2(96) Reports.

1.2(1) Each employing unit shall make such reports at such times as the commission may require, and shall comply with the instructions printed upon any report form issued by the commission pertaining to the preparation and return of such report.

1.2(2) Any individual or employing unit, not already an employer, who fulfills the conditions with respect to becoming an employer, shall immediately give notice to the commission of that fact. He shall set forth in such notice his name and address and the name and address of the business.

1.2(3) Any employer who terminates his business for any reason whatsoever, or transfers or sells all or a substantial part of the assets of his organization, trade or business to another, or changes the trade name of such business or address thereof, shall, within ten days after such termination, transfer, or change of name or address, give notice in writing to the commission of that fact. He shall set forth in such notice the former name and address of the business, the new name and address, the name of any new owner, and his own name and present address.

1.3(96) Definition of wages for employment during a calendar quarter. Unless the context otherwise requires, terms used in rules, regulations, interpretations, forms, and other official pronouncements issued by the commission shall have the following meanings:

1.3(1) "Wages paid" include both wages actually received by the worker and wages constructively paid. Wages are constructively paid when they are credited to the account of or set apart for a worker without any substantial restriction as to the time or manner of payment or conditions upon which payment is to be made and must be made available to him so that they may be drawn upon by him at any time, and their payment brought within his own control and disposition, although not then actually reduced to possession.

1.3(2) "Wages payable" means wages earned, including wages earned and paid as well as wages earned and unpaid. [See section 96.19 (10) "a", "b".]

1.4(96) Identification of workers covered by the Iowa employment security law.

1.4(1) Each employer shall ascertain the federal social security account number of each

worker employed by him in employment subject to the Iowa employment security law.

1.4(2) The employer shall report the worker's federal social security account number in making any report required by the Iowa employment security commission with respect to the worker.

1.4(3) If any employer has in his employ a worker engaged in employment who does not have an account number, such employer shall request the worker to show him a receipt issued by an office of the social security board acknowledging that the worker has filed an application for an account number. The receipt shall be retained by the worker. In making any report required by the Iowa employment security commission with respect to such a worker, the employer shall report the date of issue of the receipt, its termination date, the address of the issuing office, and the name and address of the worker exactly as shown in the receipt.

1.4(4) If a worker fails to report to the employer his correct federal social security account number or fails to show the employer a receipt issued by an office of the social security board acknowledging that he has filed an application for an account number, the employer shall inform the worker that regulation 106 of the bureau of internal revenue, United States treasury department, under the federal insurance contribution Act provides that:

a. Each worker shall report to every employer for whom he is engaged in employment, his federal social security account number and his name exactly as shown on the account number card issued to him by the social security board.

b. Each worker who has not secured an account number shall file an application for a federal social security account number on form SS-5 of the treasury department, bureau of internal revenue. The application shall be filed on or before the seventh day after the date on which the worker first performs employment for wages, except that the application shall be filed on or before the date the worker leaves the employ of his employer if such date precedes such seventh day. Copies of form SS-5, "Application for a Social Security Account Number" can be secured at the field office of the social security board nearest the worker's place of employment or the local post office.

c. If, within fourteen days after the date on which the worker first performs employment for wages for the employer, or on the day on which he leaves the employ of the employer, whichever is the earlier, the worker does not have a federal social security account number, and has not shown the employer a receipt issued to the worker by an office of the social security board acknowledging that he has filed an application for an account number, the worker shall furnish the employer an application on form SS-5, completely filled in and signed by the worker. If a copy of form SS-5 is not available, the worker shall furnish

the employer a written statement, signed by the worker, of the date of the statement, the worker's full name, present address, date and place of birth, father's full name, mother's full name before marriage, worker's sex and color, and a statement as to whether the worker had previously filed an application on form SS-5 and, if so, the date and place of such filing. Furnishing the employer with an executed form SS-5, or statement in lieu thereof, does not relieve the worker of his obligation to make an application on form SS-5 as required in paragraph "b."

1.4(5) The employer shall inform the worker, in instances in which the information is pertinent, that in accordance with the regulation 106 of the bureau of internal revenue, United States treasury department:

a. Any worker who has lost his federal social security account number card may secure a duplicate card by applying at the field office of the social security board nearest the worker's place of employment.

b. Any worker may have his account number changed at any time by applying to a field office of the social security board and showing good reason for a change. Any worker whose name is changed by marriage or otherwise, or who has stated incorrect information on form SS-5, should report such change or correction to a field office of the social security board. Copies of the form OAAAN-7003 "Employee's Request for Change in Records," for making such reports may be obtained from any field office of the social security board or the central office of the Iowa employment security agency or a local employment office.

c. Any worker who has more than one social security account number shall report all numbers to the field office of the social security board nearest the worker's place of employment or to a local employment office.

1.4(6) If the worker fails to comply with the requirements enumerated under 4 above, the employer shall execute a form SS-5, "Application for a Social Security Account Number," or statement, signed by the employer setting forth as fully and as clearly as practicable the worker's full name, his present or last known address, date and place of birth, father's full name, mother's full name before marriage, the worker's sex and color, and a statement as to whether an application for an account number has previously been filed by the worker, and if so, the date and place of such filing. This statement or the executed form SS-5, signed by the employer, shall be attached to any report required by the Iowa employment security commission with respect to such a worker.

1.5(96) Separation notices.

1.5(1) Separation notices required when the separation is such that no disqualification is involved.

Each employer shall deliver to each worker when separated from his employment with

such employer permanently or for an indefinite period, or for an expected duration of seven days or more, when such separation is under conditions which, in the opinion of the employer, would not disqualify the worker from receiving benefits, a copy of "Information For Workers," form IESC 200. This notice shall be delivered to the worker at the time of separation if possible, or if such delivery be impossible or impracticable it shall be mailed to such worker's last known address.

1.5(2) Separation notices required under conditions which may disqualify a worker from receiving benefits.

Whenever a worker is separated from his employment permanently or for an indefinite period, or for an expected duration of seven days or more, for any reason defined in section 96.5 of the Code which, in the opinion of the employer may disqualify him from receiving benefits, the employer shall within seven days after such separation notify the Iowa employment security commission of such separation on form IESC 203, notice of separation. The employer shall also deliver to such worker a copy of such notice at the time of separation if possible, or if delivery is impossible or impracticable he shall mail a copy of such notice to the last known address of such worker.

1.6(96) Employer elections to cover multi-state workers.

1.6(1) The following rule shall govern the Iowa employment security commission in its administrative co-operation with other states subscribing to the interstate reciprocal coverage arrangement, hereinafter referred to as "the arrangement."

1.6(2) Definitions. As used in this rule unless the context clearly indicates otherwise:

a. "Jurisdiction" means any state of the United States, the District of Columbia, Puerto Rico, or, with respect to the federal government, the coverage of any federal unemployment compensation law;

b. "Participating jurisdiction" means a jurisdiction whose administrative agency has subscribed to the arrangement and whose adherence thereto has not terminated;

c. "Agency" means any officer, board, commission or other authority charged with the administration of the unemployment compensation law of a participating jurisdiction;

d. "Interested jurisdiction" means any participating jurisdiction to which an election submitted under this regulation is sent for its approval; and "interested agency" means the agency of such jurisdiction;

e. Services "customarily performed" by an individual in more than one jurisdiction means services performed in more than one jurisdiction during a reasonable period, if the nature of the services gives reasonable assurance that they will continue to be performed in more than one jurisdiction or if such services are required or expected to be performed in more than one jurisdiction under the election.

1.6(3) *Submission and approval of coverage elections under the interstate reciprocal coverage arrangement.*

a. Any employing unit may file an election, on form RC-1, to cover under the law of a single participating jurisdiction all of the services performed for him by any individual who customarily works for him in more than one participating jurisdiction.

Such an election may be filed, with respect to an individual, with any participating jurisdiction in which (1) any part of the individual's services are performed; (2) the individual has his residence; or (3) the employing unit maintains a place of business to which the individual's services bear a reasonable relation.

b. The agency of the elected jurisdiction (thus selected and determined) shall initially approve or disapprove the election.

If such agency approves the election, it shall forward a copy thereof to the agency of each other participating jurisdiction specified thereon, under whose unemployment compensation law the individual or individuals in question might, in the absence of such election, be covered. Each such interested agency shall approve or disapprove the election, as promptly as practicable; and shall notify the agency of the elected jurisdiction accordingly.

In case its law so requires, any such interested agency may, before taking such action, require from the electing employing unit satisfactory evidence that the affected employees have been notified of, and have acquiesced in, the election.

c. If the agency of the elected jurisdiction, or the agency of any interested jurisdiction, disapproves the election, the disapproving agency shall notify the elected jurisdiction and the electing employing unit of its action and of its reasons therefor.

d. Such an election shall take effect as to the elected jurisdiction only if approved by its agency and by one or more interested agencies.

An election thus approved shall take effect, as to any interested agency, only if it is approved by such agency.

e. In case any such election is approved only in part, or is disapproved by some of such agencies, the electing employing unit may withdraw its election within ten days after being notified of such action.

1.6(4) *Effective period of elections.*

a. Commencement. An election duly approved under this rule shall become effective at the beginning of the calendar quarter in which the election was submitted, unless the election, as approved, specifies the beginning of a different calendar quarter.

If the electing unit requests an earlier effective date than the beginning of the calendar quarter in which the election is submitted, such earlier date may be approved solely as to those interested jurisdictions in which the employer had no liability to pay contributions for the earlier period in question.

b. Termination.

(1) The application of an election to any individual under this rule shall terminate, if the agency of the elected jurisdiction finds that the nature of the services customarily performed by the individual for the electing unit has changed, so that they are no longer customarily performed in more than one participating jurisdiction. Such termination shall be effective as of the close of the calendar quarter in which notice of such findings is mailed to all parties affected.

(2) Except as provided in subparagraph (1), each election approved hereunder shall remain in effect through the close of the calendar year in which it is submitted, and thereafter until the close of the calendar quarter in which the electing unit gives written notice of its termination to all affected agencies.

(3) Whenever an election under this rule ceases to apply to any individual, under subparagraph (1) or (2), the electing unit shall notify the affected individual accordingly.

1.6(5) Reports and notices by the electing unit.

a. The electing unit shall promptly notify each individual affected by its approved election, on the form RC-2 supplied by the elected jurisdiction, and shall furnish the elected agency a copy of such notice.

b. Whenever an individual covered by an election under this regulation is separated from his employment, the electing unit shall again notify him, forthwith, as to the jurisdiction under whose unemployment compensation law his services have been covered. If at the time of termination the individual is not located in the elected jurisdiction, the electing unit shall notify him as to the procedure for filing interstate benefit claims.

c. The electing unit shall immediately report to the elected jurisdiction any change which occurs in the conditions of employment pertinent to its election, such as cases where an individual's services for the employer cease to be customarily performed in more than one participating jurisdiction or where a change in the work assigned to an individual requires him to perform services in a new participating jurisdiction.

1.7(96) Defining "canning season" and providing for the furnishing by employers of certain dates in regard thereto. A "canning season" as contemplated by section 96.3(7) of the Code, shall be defined as the period during which fresh perishable fruits or vegetables are being processed, and in addition thereto, preparatory and cleanup periods of four days prior to, and four days subsequent to, said processing period.

Each employer engaged in the processing of perishable fresh fruits or vegetables shall, when requested by the Iowa employment security agency, furnish such agency with respect to any canning season the date on which such processing period began and the date on

which such processing period ended.

Such employer shall, with respect to a claimant, furnish such agency the date, or dates, if more than one period, on which such claimant first began to work for such employer during the claimant's base period, and the date or dates on which such claimant last worked for such employer.

[Filed June 27, 1955; amended November 22, 1961, September 11, 1968]

CHAPTER 2

EMPLOYER'S CONTRIBUTIONS AND CHARGES

2.1(96) Contributions by employers.

2.1(1) Contributions shall become due and be payable quarterly on the last day of the month next following the calendar quarter for which the contributions have accrued. Contributions with respect to the calendar year 1936 became due and payable on April 30, 1937. Provided that if the commission finds that the collection of any contributions from a particular employer will be jeopardized by delay they may declare such contributions due and payable as of the date of the finding.

2.1(2) Upon written request filed with the commission before the due date of any contribution, the commission may, for good cause shown, grant an extension in writing of the time for payment of such contribution and the due date, but (a) no extension shall exceed thirty days, and (b) no extension shall postpone payment beyond the last day for filing tax returns under the federal unemployment tax Act. If an employer who has been granted an extension fails to pay his contribution on or before the termination of the period of such extension, interest shall be payable from the original due date as if no extension had been granted.

2.1(3) The first contribution payment of any employing unit which elects, with the written approval of such election by the commission, to become an employer, or to have nonservice services performed for it deemed employment, shall become due and payable on the last day of the month next following the close of the calendar quarter in which the conditions of becoming an employer by election are satisfied, and shall include contributions with respect to all wages paid for employment occurring on and after the date stated in such approval (as of which such employing unit becomes an employer), up to and including the calendar quarter in which the conditions of becoming an employer by election are satisfied.

2.1(4) The first contribution payment of an employer who becomes newly liable for contributions in any year because of employment performed for him within such year or because of employment on his work in his usual trade, occupation, profession or business performed

for a contractor or subcontractor shall become due and payable on the last day of the month next following that quarter wherein occurred the twentieth calendar week, during the calendar year within which a total of four or more workers were employed on any one day. The first payment of such an employer becoming liable in the course of a calendar year shall include contributions with respect to all wages paid for employment from the first day of the calendar year.

2.1(5) The first contribution payment of an employer who becomes newly liable for contributions in any year in any other manner shall become due and be payable on the last day of the month next following the quarter wherein such individual or employing unit became an employer. The first payment of such an employer shall include contributions with respect to all wages paid for employment for such individual or employing unit since the first day of the calendar year.

2.2(96) Accrual of interest.

2.2(1) In those cases in which the commission finds that a genuine controversy exists or has existed regarding an employing unit's liability for contributions on all or a part of its employees and the case has been resolved against such employing unit, then no interest will accrue from the date of such controversy between the commission and the employing unit until thirty days after the decision of the commission requiring the payment of contributions.

2.2(2) Interest shall not accrue with respect to contributions required from an employer based upon wages for employment in those cases in which the employer's liability is based solely upon the provisions of section 96.19(6)"g" of the Code until thirty days after determination of his liability under the federal Unemployment Tax Act.

2.2(3) Interest shall not accrue in those cases where the commission finds that, as a matter of equity and good conscience, the employer should not be required to pay interest.

2.3(96) Employers' payments to persons performing military services. The term "wages" shall not include cash payments, or the cash value of other remuneration, made voluntarily and without contractual obligation to, or in behalf of, an individual for periods during which such individual is in active service or training as a member of the national guard, or the military or naval forces of the United States, including the organized reserves.

2.4(96) Rule establishing the manner in which benefits shall be charged against the accounts of several employers for whom an individual performed services in employment in the same calendar quarter. Where an individual has been employed by two or more employers during the same period, benefits payable to such individual by reason of such em-

ployment shall be charged against the accounts of such employers, against whose accounts the maximum charges hereunder have not previously been made, in accordance with the following:

When wage records filed with the commission by employers show that the individual has been employed by two or more employers during the same calendar quarter, but the wage records do not indicate that employment within the quarter has been consecutive, then the benefits paid to such eligible individual shall be apportioned and charged against the accounts of such employers in direct ratio to the wages earned by such individual in insured work for such calendar quarter. The method of apportionment for chargeback purposes shall be on the basis of the ratio which the wages earned by such individual in insured work for each such employer in such calendar quarter bears to the total wages earned by such individual in insured work from all such employers in such calendar quarter.

2.5(96) Cash value of board and room.

2.5(1) If board, lodging, or any other payment in kind, considered as payment for services performed by a worker, is in addition to or in lieu of (rather than a deduction from) money wages, the commission shall determine or approve the cash value of such payment in kind, and the employer shall use these cash values in computing contributions due under the law.

2.5(2) Where a cash value of board and lodging furnished a worker is agreed upon in any contract of hire, the amount so agreed upon shall, if more than the rates prescribed herein, be deemed the value of such board and lodging.

2.5(3) Unless and until in a given case a rate for board and lodging is determined by the commission, board and lodging furnished in addition to money wages shall be deemed to have not less than the following values:

Meals per week	\$5.00
Meals per day	1.00
Meals per meal:	
Breakfast .....	.25
Dinner .....	.35
Supper .....	.40
Lodging per week	3.00
Lodging per day .....	.50

2.6(96) Establishing the value of a truck driver's personal services in cases where he furnishes his own truck. The wages of a truck driver who furnishes his own truck to be used in his employer's business, and whose remuneration includes wages for personal services as well as the cost and operation and the rental value of his truck, shall, in the absence of an agreement be determined as follows:

The value of that part of the total remuneration received which is to be considered

wages for personal services, shall in no event be less than the prevailing wage scale in the locality where the truck driver has his base of operations for similar services of a truck driver operating the same size and type of truck.

If there is no prevailing wage in the locality in which the truck driver has his base of operations, the wages of a truck driver shall be fifty-five percent of the total remuneration received from his employer when using a truck having a load capacity of two tons or less, fifty percent of the total remuneration received from his employer when using a truck having a load capacity of over two tons and not more than three and one-half tons; and forty percent of the total remuneration received from his employer when using a truck having a load capacity of over three and one-half tons.

If the commission finds upon a showing made before it by interested parties, that the determination of the wages of such a truck driver on the basis of the percentages of the total remuneration received, as above provided, would be unreasonable or arbitrary, then the commission may set by special rule the value of the wages of the truck driver or truck drivers involved in the particular case. [Filed June 27, 1955; amended October 8, 1957, June 23, 1959]

CHAPTER 3 CLAIMS AND BENEFITS

3.1(96) Defining "week" as used in section 96.19(6) "a". Section 96.19(14) defines the word "week" and provides: " 'Week' means such period, or periods, of seven consecutive calendar days ending at midnight, or as the commission may by regulations prescribe."

The commission accordingly prescribes that the word "week" as used in section 96.19(6) "a" refers to a calendar week and not to a flexible week.

3.2(96) Claims for benefits for total and partial unemployment.

3.2(1) Claims and registrations for benefits for total unemployment.

a. Any individual claiming benefits or waiting period credits for total unemployment shall report in person at the public employment office most accessible to him and shall there register for work and file a claim for benefits, which claim shall be effective as of the first day of the calendar week in which he does so report and file his claim, except as otherwise provided in this rule.

b. In order to establish eligibility for benefits or for waiting period credits for weeks of total unemployment, the claimant shall continue to file claims as directed, in person or by mail, at such intervals as may be prescribed by a representative of the Iowa employment security commission.

c. The Iowa employment security commission, for reasons found to constitute good cause for any individual's inability to report

to the public employment office at which he filed his claim for benefits and registered for work, may permit such individual to report to any other employment office maintained as a part of a state-controlled system of public employment offices in this state.

d. The Iowa employment security commission, for reasons found to constitute good cause for any individual's failure to appear at the time specified for reporting to the public employment office, may accept a continued claim from such individual as having been made at the specified time, provided such continued claim is filed within seven days following the date specified for his reporting if weekly claims service is provided and within fourteen days if biweekly claims service is provided.

e. If an individual is located in an area served only by an itinerant service of the Iowa employment security commission, his claim for total unemployment may be accepted as effective as of the first day of the calendar week in which he became totally unemployed, provided that he registered in person with such itinerant service at the first available opportunity following the commencement of his total unemployment.

f. Claims for benefits for total unemployment shall set forth (1) that the individual claims benefits; (2) that he registers for work; and (3) such other information as is required thereby. The claim for benefits for total unemployment shall constitute both the individual's registration for work and his claim for benefits, or waiting period credits.

g. Continued claims for benefits for total unemployment shall set forth (1) that the individual continues his claim for benefits; (2) that he is totally unemployed; (3) that he registers for work; (4) that since he last registered for work he has performed no service and earned no wages, except as indicated; and (5) such other information as is required thereby. The continued claim for benefits for total unemployment shall constitute both the individual's registration for work and his claim for benefits or waiting period credits.

h. For the week which immediately precedes an individual's re-employment under conditions which no longer render him eligible for benefits or waiting period credits (total or partial), such individual may file, in person or by mail, a report of his total unemployment and supplementary earnings received for such week in the form of a signed statement, providing that such individual at the beginning of the week for which the claim is made (1) registered for work, (2) filed a claim or continued claim for benefits or waiting period credits.

3.2(2) Claims and registrations for individuals located in areas served only by itinerant service.

a. In order to claim benefits or waiting period credits for total unemployment any individual located in an area served only by the itinerant service of the Iowa state employment service shall report in person to such itinerant service at the time and place

designated by the commission at the first available opportunity therefor, and shall (1) register for work, (2) file a claim for benefits with such service pursuant to the provisions of 3.2(1) "a" and "f".

b. In order to establish eligibility for benefits or for waiting period credit for weeks of total unemployment during a continuous period of total unemployment, the claimant shall (1) continue to report on the date specified for reporting to such service, and (2) file continued claims for benefits pursuant to the provisions of 3.2(1) "b", "c", "d" and "g".

3.2(3) Definitions.

a. "Regular job" as referred to in section 96.19(10)"b", of the Code, shall mean a job with an employer with whom the individual has a continuous attachment during a given claim period. Attachment will ordinarily have reference to the individual who has been employed and expects to continue in the employ of the employer for a considerable period—a month, six weeks or longer.

b. *Week of partial unemployment.* With respect to a partially unemployed individual whose wages are paid on a weekly basis, a week of partial unemployment shall consist of his pay period week; with respect to a partially unemployed individual whose wages are not paid on a weekly basis, but the amount the claimant has earned during any seven consecutive days period or periods within such pay period can be determined and such information furnished to the commission, a week of partial unemployment shall consist of a calendar week or such other seven consecutive days period within the pay period as may be found appropriate under the circumstances and prescribed by the commission.

3.2(4) Registration and filing of claims for partial unemployment.

a. A claim for benefits filed by an individual in person at any local employment office in this state or with an authorized itinerant agent of the commission on form IUC 211, shall constitute such individual's notice of unemployment, registration for work and claim for benefits or waiting period credit, with respect to each week of partial unemployment covered by the claim provided that such claim is filed not later than four weeks after the individual receives, through his employer or through the commission, appropriate notice of his potential eligibility for partial benefits as to any such week of partial unemployment.

b. Any individual claiming benefits or waiting period credits for week of partial unemployment not in a benefit year shall file his claim in person at any local employment office in this state or with an authorized itinerant agent of the commission on form IUC 211. On the filing of a valid claim for benefits, the benefit year of such individual will begin with the day with respect to which the claim is filed, provided that such claim is filed not later than four weeks after the individual receives, through his employer or through the commission, appropriate notice of his potential eligi-

bility for partial benefits as to any such weeks of partial unemployment.

c. A continued claim for partial benefits filed by an individual in person or by mail pursuant to the provisions of this rule shall constitute such individual's notice of unemployment, registration for work and claim for partial benefits or waiting period credit, with respect to each week of partial unemployment covered by the claim provided that such continued claim is filed not later than four weeks after the individual receives, through his employer or through the commission, appropriate notice of his potential eligibility for partial benefits as to any such week of partial unemployment.

d. Any partially unemployed individual who fails with good cause to file a claim for partial benefits or waiting period credit shall be permitted to file such claim with respect to any week of partial unemployment at any time up to thirteen weeks following the close of the actual or potential benefit year in which such claim period falls, provided such claim is filed within one week after the individual is appropriately notified of his potential eligibility for partial unemployment. Failure to file a claim for partial benefits or waiting period credit as provided in these rules shall be deemed to be for good cause if due to failure on the part of the employer to comply with the requirements relating to participation in the initiation of a claim, verification or other requirements relating to partial unemployment, to coercion or intimidation exercised by the employer to prevent the prompt filing of a claim for partial benefits or waiting period credit, or to failure by the commission to discharge its responsibilities under the law and these rules.

3.2(5) Employer responsibility in the initiation of claims for partial unemployment benefits.

a. Each employer, not later than seven days immediately following the close of any week in which he has reduced the customary prevailing hours of work of any employee to the extent that the weekly wages of such employee amount to less than fifty dollars, shall complete and deliver to such individual a notice that he may be potentially eligible for benefits. This notice shall be a claim for partial unemployment compensation benefits on form IUC 211.

b. The employer may elect to use in lieu of form IUC 211 a payroll by-product, if the pay period of the employer coincides with the week or weeks of partial unemployment claimed, providing that the payroll by-product appropriately notifies the worker of his potential right to partial unemployment benefits, and contains:

- (1) Information necessary to establish the identity of the employer and claimant,
- (2) The pay period week covered,
- (3) The total amount of earnings in each such pay period week,

(4) The following certification (individual or rubber stamped), "I certify that the above amount represents reduced earnings in a week of less than full-time work because of lack of work."

(5) Signature of employer (individual or facsimile),

(6) The date such payroll by-product was delivered to the worker.

c. Upon filing of a first claim for partial benefits for a benefit year the commission shall promptly notify each worker named therein of his potential rights to partial benefits and shall notify his employer of such worker's partial earnings limit and benefit year ending date. Upon receipt of such notice, each employer shall record the partial earnings limit and the benefit year ending date on his payroll records.

3.2(6) Employer's verification of partial unemployment.

a. After an employer has been notified of a partial earnings limit (a worker's weekly benefit amount, plus six dollars), and current benefit year ending date of any worker in his employ, such employer, until otherwise notified, shall, immediately after the end of any pay period within which there were weeks in which the worker earned less than his weekly benefit amount, plus six dollars, and in any case not later than thirty days after the end of the first week of partial unemployment, occurring within such pay period [as provided for in 3.2(5)"a"] which began within such benefit year and for which such worker's earnings fall below such partial earnings limit because of lack of work in such week, furnish each such worker a joint low earnings report and claim for partial unemployment compensation benefits (individual) form IUC 211, setting forth the information required therein; or

b. The employer may elect to use in lieu of form IUC 211 a payroll by-product in conformity with the provisions of 3.2(5)"b".

c. Upon request by the commission an employer shall complete and return to the commission form IUC 213, request for employer's individual earnings report with respect to any individuals named on such form for the purpose of verifying earnings reported by the individual to the commission.

3.2(7) Mass partial unemployment.

a. The term "Mass Partial Unemployment" means a reduction of hours to less than full-time work at the same time and for the same reason for twenty-five or more partially unemployed individuals customarily employed in a single establishment.

b. When mass partial unemployment occurs the employer, not later than seven days immediately following the close of any pay period during which mass partial unemployment occurred in any week and in any case not later than thirty days after the end of the first week of partial unemployment occurring within such pay period, shall complete and mail or

deliver to the nearest public employment office of the Iowa employment security commission a joint low earnings report and claim for partial unemployment compensation benefits (Mass, Form IUC 212), covering each week of partial unemployment occurring in any such pay period. This requirement shall remain effective with respect to each pay period in any benefit year of any individual unless the employer is otherwise notified by the Iowa employment security commission.

c. Upon receipt of form IUC 212 covering initial mass partial unemployment, the Iowa employment security commission will immediately notify on form IUC 211 each individual listed on form IUC 212 that he is potentially eligible for partial unemployment compensation benefits and that he may file a claim for such benefits as provided in 3.2(4).

d. The employer or employing unit may elect to use in lieu of form IUC 212, form IUC 211 or payroll by-product as provided in 3.2(5).

3.2(8) Employer records.

a. Each employer shall keep his payroll records in such form that it would be possible from an inspection thereof to determine with respect to each worker in his employ who may be eligible for partial benefits:

(1) Wages earned, by weeks, as provided for in 3.2(3)"b".

(2) Whether any week was in fact a week of less than full-time work.

(3) Time lost, if any, by each such worker due to his unavailability for work.

3.3(96) Payment of benefits to interstate claimants.

3.3(1) The following rule shall govern the Iowa employment security commission in its administrative co-operation with other states adopting a similar regulation for the payment of benefits to interstate claimants.

3.3(2) Definitions.

a. "Interstate Benefit Payment Plan" means the plan approved by the interstate conference of employment security agencies under which benefits shall be payable to unemployed individuals absent from the state (or states) in which benefit credits have been accumulated.

b. "Interstate claimant" means an individual who claims benefits under the unemployment insurance law of one or more liable states through the facilities of an agent state. The term "interstate claimant" shall not include any individual who customarily commutes from a residence in an agent state to work in a liable state unless the Iowa employment security commission finds that this exclusion would create undue hardship on such claimants in specified areas.

c. "State" includes the District of Columbia, Puerto Rico, and the Virgin Islands.

d. "Agent state" means any state in which an individual files a claim for benefits from another state.

e. "Liable state" means any state against which an individual files, through another state, a claim for benefits.

f. "Benefits" means the compensation payable to an individual, with respect to his unemployment, under the unemployment insurance law of any state.

g. "Week of unemployment" includes any week of unemployment as defined in the law of the liable state from which benefits with respect to such week are claimed.

3.3(3) Registration for work.

a. Each interstate claimant shall be registered for work, through any public employment office in the agent state when and as required by the law, regulations, and procedures of the agent state. Such registration shall be accepted as meeting the registration requirements of the liable state.

b. Each agent state shall duly report, to the liable state in question, whether each interstate claimant meets the registration requirements of the agent state.

3.3(4) Benefit rights of interstate claimants.

a. If a claimant files a claim against any state, and it is determined by such state that the claimant has available benefit credits in such state, then claims shall be filed only against such state as long as benefit credits are available in that state. Thereafter, the claimant may file claims against any other state in which there are available benefit credits.

For the purposes of this rule, benefit credits shall be deemed to be unavailable whenever benefits have been exhausted, terminated, or postponed for an indefinite period or for the entire period in which benefits would otherwise be payable, or whenever benefits are affected by the application of a seasonal restriction.

b. The benefit rights of interstate claimants established by this rule shall apply only with respect to new claims filed on or after July 5, 1953.

3.3(5) Claims for benefits.

a. Claims for benefits or waiting period shall be filed in interstate claimants on uniform interstate claim forms and in accordance with uniform procedures developed pursuant to the interstate benefit payment plan. Claims shall be filed in accordance with the type of week in use in the agent state. Claims filed against the Iowa employment security commission shall be processed and paid on the basis of the type of benefit week used by the agent state.

b. Claims shall be filed in accordance with agent-state regulations for intrastate claims in local employment offices, or at an itinerant point, or by mail.

(1) With respect to claims for weeks of unemployment in which individual was not working for his regular employer, the liable state shall, under circumstances which it considers good cause, accept a continued claim filed up to one week, or one reporting period,

late. If a claimant files more than one reporting period late, an initial claim must be used to begin a claim series and no continued claim for a past period shall be accepted.

(2) With respect to weeks of unemployment during which an individual is attached to his regular employer, the liable state shall accept any claim which is filed within the time limit applicable to such claims under the law of the agent state.

3.3(6) Determinations of claims.

a. The agent state shall, in connection with each claim filed by an interstate claimant, ascertain and report to the liable state in question such facts relating to the claimant's availability for work and eligibility for benefits as are readily determinable in and by the agent state.

b. The agent state's responsibility and authority in connection with the determination of interstate claims shall be limited to investigation and reporting of relevant facts. The agent state shall not refuse to take an interstate claim.

3.3(7) Appellate procedure.

a. The agent state shall afford all reasonable co-operation in the taking of evidence and the holding of hearings in connection with appealed interstate benefit claims.

b. With respect to the time limits imposed by the law of a liable state upon the filing of an appeal in connection with a disputed benefit claim, an appeal made by an interstate claimant shall be deemed to have been made and communicated to the liable state on the date when it is received by any qualified officer of the agent state.

3.4(96) All interstate and intrastate benefit claimants shall make such personal efforts to find work as are customarily made by persons in the same occupation who are genuinely interested in obtaining employment.

The phrase, "efforts to find work," does not mean haphazard application for work with a fixed number of employers. It means that the claimant shall use the facilities and methods which are normally used in his occupation when seeking work.

Information concerning the facilities and methods that are available to an individual interstate claimant and such claimant's use of such facilities shall be transmitted to the liable state.

Appropriate specific action by any claimant, including action supplementing the efforts of the employment service to find work for him, will be required if any one of the following conditions exist:

3.4(1) The area in which he resides is not within the service radius of a full-time employment office, or

3.4(2) He is seeking suitable work in an occupation in which jobs are normally filled through channels other than the state employment service, such as jobs which are usually

filled through trade unions or professional societies, or

3.4(3) The employment prospects in the claimant's occupation in the area where he is claiming are sufficiently favorable to justify an opinion by the local office that personal efforts by the claimant to find work have reasonable probability of success.

As the claimant's length of unemployment increases and he has been unable to find work in his customary occupation, he may be required to seek work in some other occupation in which job openings exist or, if that does not seem likely to result in his employment, he may be required to accept counseling for possible retraining or a change in occupation.

3.5(96) Interstate claims, based on combined wage credits.

3.5(1) The following subrules adopted under section 96.20(2) of the Code, shall govern the Iowa employment security commission in its administrative co-operation with other states subscribing to the interstate plan for combining wage credits, hereinafter called "the plan."

3.5(2) Purpose of the plan. The plan is adopted to establish a system whereby unemployed workers not eligible for benefits in any one state may, through combining of wages in more than one state, become eligible for benefits.

3.5(3) Definitions. The terms used in this rule, unless the context clearly requires otherwise, have the meaning defined in 3.3(96). In addition:

a. A participating state means a state which has subscribed to the plan.

b. Combined wage claimant means a claimant who has earnings in covered employment in more than one participating state but who at the time he files his claim, is not eligible to receive benefits under the general provisions of the unemployment compensation law of the state in which he files such claim or of any other state which is operating under the interstate benefit payment plan.

c. Transferring state means a participating state which transfers to the "paying state" a record of wages, any part of which is used by the paying state to determine the benefit rights of a combined-wage credit claimant.

d. The paying state is the state in which the claim has been filed.

3.5(4) Claims for benefits. A claim for benefits or waiting period shall be filed by a combined-credit claimant in the same manner as by a claimant whose entire benefit rights exist in the paying state.

3.5(5) Determination of claims requiring combination of wages.

a. Benefit rights of a combined-credit claimant, as to whom this state is the paying state, shall be calculated the same as for an

intrastate claimant; but there shall be included in such calculation all those wages reported by any other (transferring) state which fall within the base period of this (paying) state.

b. Any wages reported by this state as a transferring state, if used as a basis for the determination of benefits in another (paying) state, shall be unavailable for determining or paying benefits directly under the Iowa employment security law, except to the extent that wages are usable for redetermination purposes.

c. The benefit year, base period, qualifying wages, benefit rate and duration of benefits under the Unemployment Compensation Law of the paying state shall be the benefit year, base period, qualifying wages, benefit rate and duration of benefits applicable to a combined-wage claimant. A combined-wage claimant's rights shall be determined by the paying state after combining all wages reported as currently available for the payment of benefits to the paying state by transferring states that such claimant earned during the base period of the paying state with his wages earned, if any, in the paying state during said base period. All other applicable provisions of the unemployment compensation law and rules and regulations of the state agency of the paying state shall be applicable to a combined-wage claimant.

d. The Iowa employment security commission will, with respect to any combined-credit claimant:

(1) Promptly request each participating state in which the claimant has worked in the base period of the paying state to furnish a report on the claimant's wages for covered employment during the base period of the transferring state and on his current eligibility under the law of such state.

(2) When acting as transferring state, report promptly, on form 1B-4A, on request of any participating state: (a) The claimant's wages for covered employment during the applicable base period of this state; (b) the amount of any such wages which are available for benefit payment purposes; (c) the current eligibility of the claimant based on the wages thus reported.

(3) When acting as paying state, send to each transferring state a copy of its initial determination, together with a statement explaining the apportionment of benefits between the states.

(4) When acting as paying state, send to the claimant a copy of its initial determination, noting his rights to appeal.

(5) When acting as paying state, send to each transferring state a quarterly statement of the benefits chargeable to said state. Each such charge shall bear the same ratio, to the total benefits paid to the combined-credit claimant by the paying state, as his wages, reported by the transferring state and used in the paying state's determination, bear to the total wages used in said determination.

(6) As soon as practicable after receipt of a quarterly statement under para-

graph (5), reimburse the paying state accordingly.

3.5(6) Exception to combining credits. A claimant's wages shall not be combined, despite any other provision of this rule, in case the paying state finds that he would be wholly ineligible for benefits based on his combined credits. In that event, his separate credits shall be returned, and reinstated, in each state involved. The provisions of the interstate benefit payment plan shall apply to such claimant.

3.5(7) A claimant's wages shall no longer be combined if the paying state finds that he has become eligible for benefits under its unemployment compensation law.

3.5(8) Termination of combining wages. Combining of wages terminates upon the termination of the benefit year in the paying state or at such time as redetermination of benefit rights becomes necessary under the law of the paying state.

3.5(9) Relation to interstate benefit payment procedures. Whenever this rule applies it shall supersede any inconsistent provisions of 3.6(96), on interstate benefit payment procedures; and shall control the disposition of the claim.

3.6(96) Interstate claims, based on the extended interstate plan for combining wages.

3.6(1) The following subrules adopted under section 96.20(2) of the Code shall govern the Iowa employment security commission in its administrative co-operation with other states subscribing to the extended interstate plan for combining wages, hereinafter called the extended plan.

3.6(2) Purpose of the extended plan. The extended plan is adopted to establish a system whereby unemployed workers having sufficient base-period wages to qualify for less than maximum annual unemployment insurance benefits in one or more participating states, and insufficient base period wages to qualify for benefits in one or more other participating states, may increase the benefits to which they are entitled, by combining wages in one of the states in which they have sufficient base period wages with base period wages in all states in each of which they have insufficient wages.

3.6(3) Definitions. The terms used in this rule, unless the context clearly requires otherwise, have the meaning defined in 3.3(96).

In addition:

a. State agency. The employment security agency of any of the states of the United States of America, of the District of Columbia, or of Puerto Rico.

b. Participating state. A state which has subscribed to the extended interstate plan for combining wages.

c. Extended-combined-wage claim. A claim filed under the extended interstate plan for combining wages.

d. Extended-combined-wage claimant. A claimant who has filed an extended-combined-wage claim.

e. Extended interstate plan for combining wages. An interstate agreement which establishes a system whereby unemployed workers having sufficient base-period wages to qualify for less than maximum annual benefits in one or more participating states, and insufficient base-period wages to qualify for benefits in one or more other participating states, may increase the benefits to which they are entitled, by combining wages in one of the participating states in which they have sufficient base-period wages with base-period wages in all participating states in each of which they have insufficient wages.

f. Paying state. A participating state, chosen by the claimant, in which he has qualifying wages which entitle him to less than maximum annual benefits, and in which his benefit rights have not been terminated.

g. Transferring state. A participating state in which the claimant has insufficient wages to qualify for benefits, and which transfers to the paying state a record of the claimant's wages currently available in such state for the payment of benefits, any part of which is used by the paying state to determine the extended-combined-wage claimant's benefit rights under the extended plan.

3.6(4) Filing extended-combined-wage claim. Claims for benefits shall be filed by an extended-combined-wage claimant under the extended plan in the same manner as by any other claimant who is claiming benefits under the employment security law of the paying state. If claims are filed in some state other than the paying state, the interstate benefit payment procedures shall be followed.

3.6(5) Payment of benefits. Benefits under the extended plan shall be paid initially to an extended-combined-wage claimant from the unemployment insurance fund, and, in accordance with the benefit formula of the paying state, to the same extent as if all transferred wages were wages under the law of the paying state.

3.6(6) Claimant's election to combine wages. The extended plan is based on a claimant's voluntary election to combine wages. Such an election, once made, is final except in those cases in which the determination of the paying state indicates that the claimant cannot combine wages under the extended plan.

Under the extended plan, wage combining is open only to claimants who are qualified in the paying state for less than its maximum potential annual benefits. An extended-combined-wage claimant under the extended plan, who is independently eligible in each of two or more participating states, may combine base-period wages in only one participating state of monetary eligibility with base period wages in all other participating states having base periods which overlap in which the extended-combined-wage claimant has less than qualifying wages.

3.6(7) Determination of extended-combined-wage claims.

a. Under the extended plan the paying state, in determining an extended-combined-wage claimant's benefit rights, shall include all of the claimant's base period wages reported by the transferring state as currently available for the payment of benefits which are for periods which are common to the base periods of both states.

b. Wages which have been reported by a transferring state, and which have been used as the basis for a determination of benefits by the paying state, shall be unavailable for determining or paying benefits under the employment security law of the transferring state or of any other state.

c. The benefit year, base period, qualifying wages, benefit rate, and duration of benefits under the employment security law of the paying state shall be the benefit year, base period, qualifying wages, benefit rate, and duration of benefits applicable to a claimant under the extended plan.

d. All other applicable provisions of the employment security law and rules and regulations of the paying state shall be applicable to a claimant under the extended plan.

3.6(8) Reports. Each participating state, with respect to any extended-combined-wage claimant under the extended plan, shall use forms approved by the committee, and:

a. When acting as paying state, shall promptly request each participating state in which the extended-combined-wage claimant has worked in the base period of the paying state to furnish a report on the extended-combined-wage claimant's wages for covered employment during that portion of the base period of the transferring state that is common to the base period of the paying state, and on his current eligibility under the employment security law of such transferring state.

b. When acting as a transferring state, shall report promptly on request of any participating state the following:

(1) The extended-combined-wage claimant's wages for covered employment during that portion of the base period of the transferring state that is common to the base period of the paying state;

(2) The amount of any such wages which are available for benefit payment purposes;

(3) The current eligibility of the extended-combined-wage claimant under the employment security law of the transferring state.

c. When acting as paying state, shall send to each transferring state a copy of the initial determination notice after combining wages, together with an explanatory statement.

d. When acting as a paying state, shall furnish the extended-combined-wage claimant with a copy of its initial determination.

e. When acting as paying state, shall send to each transferring state a quarterly statement of benefits chargeable to each such

transferring state. Each such charge shall be for only the difference between the amount payable to the extended-combined-wage claimant under the employment security law of the paying state before wage combining and the amount actually paid to the extended-combined-wage claimant. If there are two or more transferring states, such charges shall be prorated among the transferring states in proportion to the wages that were transferred by each of such transferring states.

3.6(9) Reimbursement of paying state. A transferring state, as soon as practicable after receipt of a quarterly statement, as set forth in 3.6(8)"e" above, shall reimburse the paying state accordingly.

3.6(10) Exception to combining wages. A claimant's wages shall not be combined, notwithstanding any other provision of this extended plan, if the paying state finds that the extended-combined-wage claimant's potential benefit rights would not be increased by combining. Wages reported by the transferring state(s), in such event, shall be returned to and reinstated by such transferring state(s).

3.6(11) Whenever this rule applies, it shall supersede any inconsistent provisions of 3.3(96) or 3.5(96), on interstate benefit payment procedures, and shall control the disposition of the claim. [Filed December 29, 1955; amended December 29, 1958, June 23, 1959, December 4, 1959, November 22, 1961]

CHAPTER 4 APPEALS PROCEDURE

4.1(96) Appeals and appeal tribunals.

4.1(1) The presentation of appealed claims.

a. A party appealing from a decision of a deputy shall file with the Iowa employment security commission at the administrative office in Des Moines, or at any public employment service office, a notice of appeal in writing setting forth:

(1) The name, address and social security number of the claimant;

(2) A reference to the decision from which the appeal is taken;

(3) The fact that an appeal from such decision is being made;

(4) The grounds upon which such appeal is based.

b. Upon the scheduling of a hearing on an appeal, notices of hearing shall be mailed to all parties interested in the decision of the deputy which is being appealed at least seven days before the date of hearing, specifying the place and time of hearing. A copy of the notice of appeal showing the ground for appeal shall also be sent to the interested party who is the respondent in the case.

4.1(2) Disqualifications of members of appeal tribunals. No member of an appeal tribunal shall participate in the hearing of any appeal in which he has an interest. Challenges

to the interest of any member of an appeal tribunal shall be heard and decided by the commission.

4.1(3) *Hearing of appeal.*

a. All hearings shall be conducted informally in such manner as to ascertain the substantial rights of the parties. All issues relevant to the appeal shall be considered and passed upon. The claimant and any other party to an appeal before an appeal tribunal may present such evidence as may be pertinent. Where a party appears in person, the members or member of an appeal tribunal shall examine such party and his witnesses, if any, and may cross-examine the witnesses of any opposing parties. The appeal tribunal, with notice to the parties of the time and place thereof, may take such additional evidence as it deems necessary.

b. The parties to an appeal, with the consent of the appeal tribunal, may stipulate the facts involved in writing. The appeal tribunal may decide the appeal on the basis of such stipulation, or, in its discretion, may set the appeal down for hearing and take such further evidence as it deems necessary to enable it to determine the appeal.

c. The members or member of appeal tribunals, during the conduct of any hearing, may indicate to the reporter portions of evidence which they wish transcribed to aid them in preparing their findings of fact and decision.

4.1(4) *Adjournments of hearings.*

a. The chairmen of the appeal tribunals shall use their best judgment as to when adjournments of a hearing shall be granted in order to secure all the evidence that is necessary and to be fair to the parties.

b. If either party fails to appear at the first hearing, the appeal tribunal may adjourn the hearing to a later date, or, if a decision is made, may reopen the same within ten days upon good cause being shown.

4.1(5) *The determination of appeals.*

a. Following the conclusion of hearing of an appeal the appeal tribunal shall, within seven days, announce its findings of fact, decision with respect to the appeal, and the reasons therefor, provided that the commission may, upon proper showing by the appeal tribunal, extend this time. The decision shall be in writing, signed by the members of the appeal tribunal, and filed with the commission.

b. If a decision of an appeal tribunal is not unanimous, the decision of the majority shall control. The minority may file a dissent from such decision setting forth the reasons why it fails to agree with the majority.

c. Copies of all decisions and the reasons therefor shall be mailed by the appeal tribunal to the claimant, to all other parties to the appeal, and to the deputy.

4.2(96) *Appeals to the commission.*

4.2(1) *The presentation of an appeal to the commission.*

a. A party appealing from a decision of an appeal tribunal shall file a notice of appeal

with the Iowa employment security commission at the administrative office in Des Moines or at any public employment office.

b. Upon the scheduling of a hearing on an appeal, notices of hearing shall be mailed at least seven days before the date of hearing, specifying the place and time of hearing, to the claimant and to all other parties interested in the decision of the appeal tribunal which is being appealed.

4.2(2) *Hearing of appeals.*

a. Except as provided in 4.2(4) for the hearing of appeals removed to the commission from an appeal tribunal, all appeals to the commission may be heard upon evidence in the record made before the appeal tribunal, or the commission, to enable it to determine an appeal, may direct the taking of additional evidence before it.

b. In the hearing of an appeal on the record, the commission may limit the parties to oral argument, or the filing of written argument, or both. If, in the discretion of the commission, additional evidence is necessary to enable it to determine the appeal, the parties shall be notified by the Iowa employment security commission as provided in 4.2(1) "b" of the time and place such evidence shall be taken. Any party to any proceeding in which testimony is taken may present such evidence as may be pertinent to the issue on which the commission directed the taking of evidence.

c. The commission, in its discretion, may remand any claim or any issue involved in a claim to an appeal tribunal for the taking of such additional evidence as the commission may deem necessary. Such testimony shall be taken by the appeal tribunal in the manner prescribed for the conduct of hearings on appeals before appeal tribunals. Upon the completion of the taking of evidence by an appeal tribunal pursuant to a direction of the commission, the claim or the issue involved in such claim shall be returned to the commission for its decision thereon.

4.2(3) *The hearing of appeals by the commission on its own motion.*

a. Within ten days following a decision by an appeal tribunal, and in the absence of the filing, by any of the parties to the decision of the appeal tribunal, of a notice of appeal to the commission as provided for in 4.2(1), the commission, on its own motion, may order the parties to appear before it for a hearing on the claim or any issue involved therein.

b. Such hearing shall be held only after seven days notice mailed to the parties to the decision of the appeal tribunal, and shall be heard in the manner prescribed in 4.2(2), for the hearing of appeals by the commission.

4.2(4) The hearing of appeals by the commission on cases ordered removed to it from any appeal tribunal. The proceeding on any claim before an appeal tribunal ordered by the commission to be removed to it shall be presented, heard and decided by the commission in the manner prescribed in 4.1(3), 4.1(4), and 4.1(5) for the hearing of claims before an appeal tribunal.

4.2(5) The determination of appeals.

a. Following the conclusion of a hearing on an appeal, the Iowa employment security commission shall announce its findings of facts and decision with respect to the appeal. The decision shall be in writing, signed by the members of the commission who reviewed the appeal and shall be duly filed in the offices of the commission. It shall set forth the findings of fact of the commission with respect to the matters appealed and its decision.

b. If a decision of the commission is not unanimous, the decision of the majority shall control. The minority may file a dissent from such decision setting forth the reasons why it fails to agree with the majority.

c. Copies of all findings and decisions shall be mailed by the commission to the claimant and to the other parties to the appeal before the commission.

4.3(96) General rules for both appeal stages.

4.3(1) Payment of witnesses. Witnesses subpoenaed for any hearing before any appeal tribunal or the commission shall be paid witness and mileage fees by the Iowa employment security commission in accordance with the following schedule: Witnesses shall receive for each day's attendance three dollars; and in all cases seven cents per mile for each mile actually traveled.

4.3(2) Orders for supplying information from the records of the commission. Orders for supplying information from the records of the Iowa employment security commission to a claimant or his representative to the extent necessary for the proper presentation of a claim shall issue only upon application therefor.

4.3(3) Representation before appeal tribunals and the commission.

a. Any individual may appear for himself in any proceeding before any appeal tribunal and the commission. Any partnership may be represented by any of its members or a duly authorized representative. Any corporation or association may be represented by an officer or a duly authorized representative.

b. Any party may appear by an attorney at law or his duly authorized agent.

4.3(4) Inspection of decisions of appeal tribunals and the commission. Decisions of appeal tribunals and the commission shall be kept on file at the administrative office of the Iowa employment security commission at Des Moines, Iowa, and shall be open for inspection. [Filed August 13, 1953; amended August 15, 1953, August 15, 1959, September 9, 1959, December 4, 1959]

CHAPTER 5**OLD-AGE AND SURVIVORSHIP
INSURANCE SYSTEM**

5.1(97) Accrual of interest. Interest shall not accrue with respect to taxes unpaid by the employer on the date they are due and payable as prescribed by the commission in those cases

in which a question has been raised with the commission as to whether any part or all of the services on which such taxes are based constitutes covered employment, until such time as the commission finally determines any part or all of such services to be in employment.

5.2(97) Overpayment and underpayment of tax. In the event the employer pays taxes for any quarter in excess of the amount of tax actually due and owing, the commission shall give notice of such overpayment to the employer and such overpayment shall apply as a credit against the tax for the following quarter.

In the event such employer does not pay the full amount of the tax, or in the event such employer fails to report all of its employment for any quarter, the commission shall require the payment of such additional taxes and interest and shall proceed to collect such additional taxes and interest in the manner prescribed by law. The employer shall file such additional and supplemental reports as the commission may require when directed to do so by the commission.

5.3(97) Collection and payment of tax. Each employer on or before the fifteenth day of the month immediately following the end of each quarter shall file with the commission a report on a form to be prescribed by the commission showing the name, social security account number and amount of earnings of each of its employees during such quarter.

Each employer's taxes shall be due and payable at the time such reports are filed and shall be delinquent and bear interest from and after the fifteenth day of the month immediately following the end of the quarter.

5.4(97) Election of coverage. Any political subdivision or the instrumentalities thereof not covered under the Iowa old-age and survivor insurance system may elect to become so covered by filing with the commission its election on IOASI form No. 3, and upon approval of such election by the commission shall, as of the date stated in such approval, become subject to said Act to the same extent as all other "employers" as defined by said Act.

5.5(97) Court reporter's taxable salaries. Each court reporter employed in a district comprising several counties shall keep an accurate record of the salary paid him by the various counties of his district. When he has been paid a total salary of three thousand dollars by the several counties in the district, he shall certify to the county auditor of each county of the district on a form approved by the commission to the effect that he has been paid the maximum three thousand dollars taxable salary for said year, and thereafter the various county auditors shall be authorized to discontinue the withholding and payment of any further or additional tax during such calendar year.

[Filed before July 4, 1952]

CHAPTER 6

IOWA PUBLIC EMPLOYEES RETIREMENT SYSTEM

6.1(97B) Refund of accumulated contributions of a deceased member. Chapter 97B of the Code provides that a "beneficiary" means a person or persons entitled to receive benefits at the death of a member payable under the system, designated in writing by the member and filed with the commission, or if no such designation is in effect at the time of death of the member or if no person so designated is living at that time, then the beneficiary shall be the estate of the member.

6.1(1) Payment to legal representative. Where there is no designation of beneficiary in effect at the time of death of member, payment will be made to the legal representative of such estate.

6.1(2) Payment to relative of deceased. Where it appears reasonably certain that a legal representative has not been and will not be appointed or where a legal representative has been discharged, a verified application listing the surviving spouse and all heirs at law may be filed by a relative of the deceased member by blood, marriage, or adoption, and payment made to such applicant on behalf of the estate if the requirement of 6.1(3) is met.

6.1(3) Consent of relatives to payment. Payment of benefits or refunds due at the death of a member may be made to the applicant provided for in 6.1(2) if verified statements are submitted to the commission by the spouse of the deceased member and the members of the group of relatives closest in kinship to the deceased stating that the application listing the spouse and all heirs at law falling under 6.1(2) is the correct list of the spouse and heirs at law and consenting to the payment of said death benefit or refund to the applicant for distribution as determined by the following groupings:

- a. Children and children of deceased children;
- b. Parents;
- c. Brothers and sisters and children of deceased brothers and sisters;
- d. All other relatives by blood or adoption, the closeness of relationship being determined according to the law of the domicile of the deceased insured individual.

6.2(97B) Recomputation of benefits based on re-employment after retirement.

Recomputation of benefits as provided under Iowa public employees' retirement system section 97B.48 of the Code, based on re-employment after retirement, will not be made more often than once in every twelve months period.

[Filed November 2, 1953; amended September 8, 1954]

CHAPTER 7

FEDERAL SOCIAL SECURITY

7.1(97C) Accrual of interest.

WHEREAS section 404.1255 (a), Regulation No. 4 of the secretary of health, education and welfare, provides that interest on delayed quarterly wage reports resulting from the failure of a political subdivision to forward its report and pay its tax to the commission in time to permit the commission to file a completed consolidated wage report and a completed contribution return is one-half of one percent for each calendar month or part of a calendar month after the due date of the contributions, and

WHEREAS section 97C.18 of the Code provides: "The state agency shall make and publish such rules and regulations, not inconsistent with the provisions of this Act, as it finds necessary or appropriate to the efficient administration of the functions with which it is charged under this Act, and the state agency shall comply with regulations relating to payments and reports as may be prescribed by the federal security administrator."

And, WHEREAS the commission must collect the interest from the political subdivisions that are delinquent in filing reports and in payment of the tax,

The commission accordingly prescribes:

Federal old-age and survivor insurance taxes unpaid by the date on which they are due and payable, which said due date is hereby established as the fifteenth of the month following the end of the quarter, shall bear interest at the rate of one-half of one percent for each calendar month from and after such due date until payment plus accrued interest is received by the commission. Interest shall be computed on actual days of delinquency.

Any federal old-age and survivor insurance tax penalties resulting from failure of the political subdivision to pay its tax when due shall be recovered by the commission from such political subdivision.

[Filed November 20, 1953; amended June 10, 1966]

ENGINEERING EXAMINERS

CHAPTER 1
EXAMINATIONS**1.1(114) Professional engineering examinations.**

1.1(1) Before any applicant may be permitted to appear for examination, a digest of his training and experience must be submitted to the board for approval. No one will be ad-

mitted to the examination in the professional subject (branch) until he has had the full amount of training required by law.

1.1(2) Those who have attended college shall arrange for a certified abstract of their college education record to be transmitted directly to the board secretary by the college registrar.

1.1(3) In the examination in fundamentals, questions will be asked which will generally require knowledge of mathematics, including algebra, advanced algebra, logarithms, plane and solid geometry, trigonometry, and analytical geometry, differential and integral calculus and differential equations; applied science, including physics, mechanics, statics, dynamics, hydraulics, thermodynamics, electricity, electromagnetism and chemistry; materials of construction, including resistance of materials, steel, reinforced concrete, masonry construction and timber construction; elements of structural design, including stress analysis, beams, slabs, columns, girders, trusses, foundations, retaining walls, unit stresses and graphic statics; elements of mechanical design, including power, heating, ventilation, prime movers, mechanical transmission and water power; electrical design, including laws of electricity, electrical equipment, direct and alternating circuits, types and characteristics of motors and generators; engineering administration, including engineering economics, contracts, specifications, professional practice and professional ethics; and other subjects commonly taught in the regular approved engineering curriculum.

1.1(4) Practical experience in professional engineering work to be considered of a grade and character satisfactory to the board shall be such as to require the application of engineering principles in the practical solution of engineering problems. This work shall predicate a knowledge of engineering mathematics, physical and applied sciences, properties of materials, and the fundamental principles of engineering design. It shall be of such nature as to develop and mature the applicant's engineering knowledge and judgment.

1.1(5) An applicant who fails to make a final rating of seventy percent in an examination will be required to appear for re-examination. A candidate who fails in two examinations will not be permitted to appear for another examination until he can show that he has had an additional two years of qualifying experience acceptable to the board.

1.1(6) All applicants shall be notified of two consecutive engineering board meetings after their application is filed with the secretary.

1.2(114) Photograph. A photograph of the applicant shall appear in space provided upon the application form.

It shall be an unretouched photograph taken within six months prior to the date of the application and the face shall be portrayed not less than three-fourths inch in width.

1.3(114) Land surveying. Land surveying comprises all or any combination of the following practices:

1.3(1) The making of such observations and measurements as will determine the relative position of points, areas, structures or nat-

ural objects on the earth's surface, or related thereto.

1.3(2) The surveying of areas:

a. For their correct determination and description and for conveyancing.

b. For the establishment or re-establishment of land boundaries.

c. For the platting of lands and subdivisions.

d. For the setting of reference or other monuments to perpetuate such observations, measurements and surveys.

1.3(3) The preparation of land descriptions used in conveyancing.

Observations or measurements, made exclusively for geological or landscaping purposes and not involving the determination of any property line, do not constitute land surveying within the meaning of this rule, but may be considered as surveying which is a part of civil engineering practice.

1.4(114) Examination for land surveying.

1.4(1) All applicants for examination in land surveying will have to meet the requirements of two days of written examination. This will consist of one day of fundamentals and one day of land surveying practice. Those who have passed the fundamentals portion of the examination for professional engineer will not be required to take the land surveying fundamentals.

1.4(2) Candidates must know how the original surveys were conducted. They must know the rules governing the restoration of obliterated corners. They must be able to re-establish lost corners. They must have had enough actual experience in land surveying work to make them familiar with the proper methods of retracing the original surveys. This experience cannot be gained in school or from reading books. It must be secured in the field.

1.4(3) Candidates must know what discrepancies to expect in retracement work and how to use evidence in the restoration of obliterated land lines and corners. They must understand the laws governing riparian rights, accretions, adverse possession. They must also be familiar with the ethics of the engineering profession.

1.5(114) Registration in Iowa for those registered in other states. An engineer, registered in any state, who seeks registration in Iowa shall make application for such registration to the board on prescribed forms. The information submitted with that application, together with such information which the board obtains from boards in the state, or states, where he has obtained registration shall be used as evidence of qualification for registration in Iowa.

1.6(114) Practice of engineering prior to registration. A professional engineer, registered in another state, who has made application for registration in the state of Iowa, under

1.5(114), may, upon specific application, be allowed to practice engineering in the state of Iowa, until the next meeting of the board, provided, in the opinion of the board, such practice is in the public interest, and the applicant has not begun the practice of engineering in the state before the board has approved his request.

1.7(114) Preliminary examinations for college seniors (engineers-in-training). Examination in fundamentals will be offered to persons graduating from accredited engineering courses. Examinations may be taken during or shortly after the final term at convenient times to be fixed by the board. These fundamental examinations are designed primarily to accommodate students in Iowa engineering colleges and Iowa residents attending other engineering colleges.

1.8(114) It shall be considered unprofessional and inconsistent with honorable and dignified bearing for any professional engineer or surveyor:

1. To act for his client, or employer, in professional matters other than as a faithful agent or trustee, or to accept any remuneration other

than his stated recompense for services rendered.

2. To attempt to injure falsely or maliciously, directly or indirectly, the professional reputation, prospects or business of anyone.

3. To attempt to supplant another engineer or land surveyor after definite steps have been taken toward his employment.

4. To compete with another engineer or land surveyor for employment by the use of unethical practices.

5. To review the work of another engineer or land surveyor for the same client, except with the knowledge of such engineer or land surveyor, or unless the connection of such engineer or land surveyor with the work has terminated.

6. To attempt to give or obtain technical services or assistance without fair and just compensation commensurate with the services rendered.

7. To advertise in self-laudatory language, or in any other manner derogatory to the dignity of the profession.

[Filed March 16, 1953; amended January 19, 1954, October 18, 1954, June 15, 1956, March 30, 1959, March 8, 1961, June 14, 1961, March 14, 1962, May 8, 1969]

FAIR BOARD

[The rules of the State Fair Board which appeared in the 1966 I.D.R. are omitted from this volume as not being current. The board is in the process of revising its rules and they will appear in the July 1971 Supplement. In the meantime, anyone desiring a copy of any rule in effect should contact the Secretary of the State Fair Board, 220 E. 13th Court, Des Moines, Iowa 50319]

HEALTH DEPARTMENT

TITLE I

DISEASE REPORTING AND CONTROL, AND LABORATORY APPROVAL

CHAPTER 1

COMMUNICABLE DISEASE CONTROL

1.1(139)T.I Commissioner of public health. The commissioner of public health will be the principal officer of the state for the implementation of measures to control communicable disease.

1.2(139)T.I Reportable diseases.

1.2(1) The following diseases or conditions are required to be reported to the Iowa State Department of Health, Lucas State Office Building, Des Moines, Iowa 50319 by the physician or other health practitioner attending any person infected with such disease:

a. Specific diseases:

Anthrax
Botulism
Brucellosis
Chancroid
Chickenpox
Cholera
Diarrhea, epidemic, of newborn in nurseries
Diphtheria
Encephalitis
Gonorrhea
Glanders
Granuloma inguinale

Hepatitis, viral (infectious or serum)
Histoplasmosis
Influenza
Leprosy
Leptospirosis
Lymphogranuloma venereum
Malaria
Meningitis
Mononucleosis, infectious
Mumps
Pertussis (whooping cough)
Plague
Poliomyelitis
Psittacosis
Rabies
Relapsing fever
Rocky Mountain spotted fever
Rubella (German measles)
Rubeola (measles)
Salmonellosis
Schistosomiasis
Shigellosis
Smallpox
Staphylococcal food poisoning
Syphilis
Tetanus
Trachoma
Trichinosis
Tuberculosis
Tularemia
Typhoid fever
Typhus fever
Yellow fever

b. Any other disease which is unusual in incidence, occurs in unusual numbers or circumstances, or appears to be of public health concern.

1.3(139)T.I Reporting.

1.3(1) Means of reporting.

a. *Telephone, telegraph or other electronic means.*

(1) *Internationally quarantinable disease.* Occurrence of a case of any internationally quarantinable disease shall be reported immediately by telephone, telegraph or other electronic means as soon after the diagnosis as is possible. Internationally quarantinable diseases are cholera, plague, relapsing fever (louse-borne), smallpox and yellow fever.

(2) *Diseases of high public health importance.* Occurrence of a case of typhoid fever or diphtheria will be reported to the department immediately by telephone, telegraph or other electronic means as soon after the diagnosis as possible.

(3) Occurrence of an outbreak of unusual numbers or under unusual circumstances of a communicable disease, such as epidemic diarrhea of the newborn in nurseries or a food poisoning episode, shall be reported immediately to the department by telephone, telegraph or other electronic means.

b. *By mail or other means.* Cases of other reportable diseases shall be reported to the department by mail at least weekly. If there is concern that delay might hinder the application of organized control measures to protect the public health, incidence of communicable disease should be reported by telephone.

1.4(139)T.I Forms.

1.4(1) Reports of communicable diseases, other than venereal diseases, may be submitted in writing on any paper and in any format.

1.4(2) Venereal diseases should be reported on a special form which is provided to physicians and laboratories. Since these reports are confidential, they shall be transmitted in envelopes or other secure fashion. Reports of venereal disease must include name, age, sex, marital status, occupation of the patient, name of disease, possible source of infection and the duration of the disease. In localities where there is a local, functioning health department, the law requires the report to be made to the local health department. Local health departments must forward the same information to the state department of health.

1.5(139)T.I Who should report.

1.5(1) Physicians are required by law to report all cases of reportable disease attended by them.

1.5(2) Hospitals are encouraged to report cases of reportable disease admitted.

1.5(3) School nurses are encouraged to report cases of communicable disease occurring among the children supervised.

1.5(4) School officials, through the principal or superintendent as appropriate, are encouraged to report when there is no school nurse.

1.5(5) Parents are encouraged to report, particularly when disease occurs in children not in school or when the disease might otherwise not be reported.

1.6(139)T.I Isolation.

1.6(1) Time periods for isolation and quarantine.

Disease	Period of Isolation	Period of Quarantine
Chickenpox	7 days from onset of pocks.	None
Diphtheria	Until after 2 negative cultures from nose and throat, 24 hours apart.	5 days, if susceptible intimate contact
Rubella (German measles)	5 days from onset of rash. Keep away from pregnant women.	None
Impetigo	Until physician permits return.	None
Infectious Hepatitis	14 days from onset of clinical disease, at least 7 days from onset of jaundice.	None
Rubeola (measles)	7 days from onset of rash.	None
Meningococcal Meningitis	Until physician permits return.	None
Mumps	9 days or until swelling disappears.	None
Pediculosis	1 day after DDT or other adequate treatment.	None
Poliomyelitis	7 days from onset.	None
Ringworm of scalp	Until physician permits return.	None
Scabies	Until adequately treated by physician.	None
Scarlet fever Scarlatina	7 days from onset if untreated or 24 hours after antibiotics.	None
Strep throat		
Smallpox	Until all scabs are gone.	17 days if unvaccinated and unco-operative
Whooping cough	21 days from beginning of whoop.	None

1.6(2) Enforcement of isolation. Isolation is to be enforced when communicable diseases are admitted or occur in hospitals, nursing homes or other health care facilities. Isolation technique will be graded in the strictness of application by the type of disease.

1.6(3) Strict isolation.

a. Gowns and masks: To be worn by all persons entering room and discarded before leaving room.

b. Hands: To be washed thoroughly before and after removing gown.

c. Articles: To be discarded or washed and disinfected or wrapped for autoclaving before being taken from room.

d. Diseases for which applicable: Diphtheria; staphylococcal pneumonia; exudative streptococcal infections; meningococcus infections; smallpox and open active tuberculosis.

1.6(4) Wound and skin isolation.

a. Gowns and gloves: To be worn only by persons having direct contact with patient.

b. Masks: To be worn by all persons entering room.

c. Hands: To be washed thoroughly on entering and leaving room.

d. Articles: To be discarded or washed and disinfected or wrapped for autoclaving before being taken from room.

e. Diseases for which applicable: Staphylococcus, pseudomonas or other gross wound infections; severe dermatitis with broken skin; gas gangrene; syphilis with skin or mucous membrane lesions and ringworm of the scalp.

1.6(5) Enteric isolation.

a. Gowns and gloves. To be worn only by persons having direct contact with patients.

b. Masks: Not necessary.

c. Hands: To be washed thoroughly on entering and leaving room.

d. Articles: To be discarded or washed and disinfected or wrapped for autoclaving before being taken from room.

e. Diseases for which applicable: Leptospirosis; amebiasis; hepatitis (serum and infectious); shigellosis; salmonellosis; poliomyelitis, aseptic meningitis; viral myocarditis or pericarditis.

1.6(6) Protective isolation, of benefit principally to the patient.

a. Gowns and gloves: To be worn by all persons entering room.

b. Masks: To be worn by all persons entering room.

c. Hands: To be washed thoroughly on entering room.

d. Only clean articles should be introduced into the area.

e. Applicability: Newborn nurseries; severe burn cases; other situations where it is imperative to minimize introduction of infection.

1.6(7) Single rooms are desirable for isolation. More than one patient with the same disease in the same room may be necessary in special situations. Isolation should be discon-

tinued as soon as there is reasonable evidence that the hazard of spread is minimal.

1.6(8) Isolation in the home should mean prohibition of contact between patient and other susceptible members of the family. Good handwashing and individual care of eating utensils, preferably with use of disposable items, should be practiced. If nondisposable utensils are used, great care should be taken that they are properly sterilized so that they do not become a source of contamination for utensils used by other members of the family. School children who contract communicable diseases should be kept out of school and out of close contact with siblings and other children. Adults who contract communicable disease should remain at home unless hospitalized and out of close contact with susceptible family members for the same periods specified in this rule.

1.7(139) T.I Quarantine.

1.7(1) Quarantine will rarely be imposed by the state department of health. Should one of the internationally quarantinable diseases occur in Iowa, persons exposed, contacts, to the case shall be quarantined as the particular situation requires. Generally, contacts will be tested, as possible, for susceptibility. Immune reactors may be released from quarantine as soon as the laboratory results are available. Susceptible contacts will be continued in quarantine until the longest usual incubation period of the disease has elapsed. Confinement will usually be in their own homes, if this can be done with safety. Such other places of confinement may include dormitories, special hospitals such as a state institution or, under exceptional circumstances, in motels, hotels or the like. Such sites of quarantine will be prominently placarded with quarantine signs furnished by the department and posted on all sides of the building wherever access is possible. No susceptible person, not already a contact, will be admitted within the quarantine enclosure.

1.8(139) T.I Disinfection.

1.8(1) Concurrent disinfection. All discharges from infected eyes, ears, nose, throat and skin lesions should be prevented from being disseminated. They should be absorbed by dressings or tissues and these contaminated items should be handled carefully and disposed of by incineration. Excreta from infected persons may be disposed of through sanitary sewers if these are available and adequate. Such wastes should be decontaminated by use of creosol solutions before disposal into pits or septic tanks. Body and bed linen should be carefully handled. It may be disinfected before laundering with creosol solutions. It may be safely laundered in commercial laundries if the personnel are knowledgeable in safe handling techniques. These soiled materials should not be sorted, shaken or manipulated unnecessarily before they are put into the washer.

1.8(2) Terminal disinfection. Terminal disinfection is rarely necessary. Terminal

cleaning usually suffices. Floors, walls, furniture and other articles in the room occupied by a communicable disease case should be disinfected by washing with water and detergent or soap. Airing and sunning of rooms, furniture and bedding is necessary. If smallpox has occurred, sterilization of bedding is required.

[Filed November 20, 1970]

CHAPTER 2

OPHTHALMIA PROPHYLACTICS FOR NEWBORN INFANT EYES

2.1(140)T.I Treatment of infant eyes. The Iowa state department of health approves the following ophthalmia prophylactic solutions for newborn infants' eyes:

2.1(1) One percent silver nitrate from unopened wax ampules in each conjunctival sac followed by normal saline flush or

2.1(2) Penicillin ointment in the strength of not less than 100,000 units per gram or

2.1(3) Erythromycin ointment in the strength of not less than five milligrams per gram.

2.1(4) The Iowa state department of health may give written approval to other ophthalmia prophylactic solutions or ointments upon receipt of a written request accompanied by adequate evidence concerning the effectiveness of the solution or ointment.

[Filed November 20, 1970]

CHAPTER 3

BLOOD TESTING LABORATORIES

3.1(140;596)T.I Approved premarital and prenatal blood testing laboratories. The state department of health approves the following laboratories for the purpose of performing serologic tests for syphilis in accordance with premarital and prenatal requirements:

3.1(1) The State Hygienic Laboratory at Iowa City, Iowa.

3.1(2) Laboratories of all state and territorial health departments.

3.1(3) Laboratories of the United States Public Health Service, and Army, Navy, and Air Force.

3.1(4) The health department laboratories of New York City and the District of Columbia.

3.1(5) The official laboratories of the provincial health departments in Canada.

3.1(6) Those private and other governmental laboratories approved for this purpose by the state department of health. A list of the approved private and other governmental laboratories is available upon request to the State Department of Health, Robert Lucas Office Building, Des Moines, Iowa 50319.

[Filed November 20, 1970]

CHAPTER 4

PHENYLKETONURIA TESTING LABORATORIES

4.1(135)T.I Time sequence for phenylketonuria tests. A test for phenylketonuria should be done preferably forty-eight hours after first feeding but in any event immediately prior to hospital discharge. A second test should be done at about four weeks of age.

4.2(135)T.I Blood or serum. The test should be a phenylalanine blood or serum test.

4.3(135)T.I Requirements for approval. The state department of health will approve any laboratory to perform laboratory tests for phenylketonuria provided that such laboratory meets the following criteria.

4.3(1) The laboratory director agrees to perform the inhibition assay method of Guthrie or a standard quantitative phenylalanine blood test for phenylketonuria on the request of any licensed physician, and "a" or "b":

a. The laboratory is supervised by a pathologist either full-time or part-time who is certified by the American Board of Pathology, or

b. The laboratory is appraised by the State Hygienic Laboratory under a quality control program to perform either one or both of the designated tests.

4.3(2) The tests performed by the laboratory are scheduled on at least a weekly basis and reports of the number of tests performed are made quarterly to the State Hygienic Laboratory.

4.3(3) Reports of positive results are made immediately to the State Department of Health, State Office Building, Des Moines, Iowa 50319.

4.4(135)T.I Quality control program. It is recommended that those laboratories supervised by a part-time or full-time board certified pathologist participate in the quality control program of the state hygienic laboratory.

4.5(135)T.I Information available. Guidelines available upon request to the state department of health should be followed.

[Filed November 20, 1970]

CHAPTER 5

MATERNAL DEATHS

5.1(135)T.I Reporting of maternal deaths. All maternal deaths shall be reported to the division of maternal and child health of the state department of health within forty-eight hours. A maternal death is any death occurring while a woman is pregnant or any death of a woman within six months of delivery. This includes deaths resulting from abortions, ectopic pregnancies and all deaths during pregnancy, childbirth, puerperium or deaths from complications of childbirth.

[Filed November 20, 1970]

TITLE II
GENERAL SANITATION

CHAPTER 1
DEFINITIONS

1.1(135)T.II Definitions.

1.1(1) Department. Department as hereinafter used shall refer to the state department of health.

1.1(2) Local board. Local board shall refer to a local board of health in cities and towns, and in townships, as defined in section 2228, Code of Iowa, 1939 [§137.1, C. '50].

1.1(3) Health officer. Health officer shall mean the health officer of a local board of health as defined in section 2231, Code of Iowa, 1939[§137.4, C. '50].

1.1(4) Public water supply. Public water supply shall mean any water supply serving a municipality or water district, either publicly or privately owned.

1.1(5) Quasi-public water supplies. Quasi-public water supplies shall include all water supplies not coming under the definition of public water supplies which are used for drinking, culinary, and ablutionary purposes by persons other than the owner or lessee of property upon which such water supply is located.

1.1(6) Public swimming pool. Public swimming pool shall mean any swimming pool open to the public either publicly or privately owned.

1.1(7) Dwelling. A dwelling is any house or building or portion thereof which is occupied in whole or in part as the home or residence of one or more human beings, either permanently or transiently.

[Filed prior to July 1, 1952]

CHAPTER 2
WATER SUPPLIES

2.1(135)T.II General. Every public or quasi-public water supply used for drinking, culinary, or ablutionary purposes which is hereafter constructed or extensively reconstructed, or existing and in the opinion of the state or local health officer is unsafe, shall comply with the requirements of these rules.

2.2(135)T.II Public water supplies. All public water supplies shall comply with the requirements for approval by the department.

2.2(1) Plans and specifications for any new construction or for reconstruction or improvement of any existing supply shall be submitted to the department before construction begins. This includes main extensions.

2.2(2) The water shall not contain an excessive amount of soluble mineral substance, nor excessive amounts of any chemicals employed in treatment. It should be clear, colorless, odorless and pleasant to the taste. It

shall be equal in bacteriological quality to the U. S. Public Health Service Drinking Water Standards 1946, as published in Reprint 2697 from the public health reports on file in the office of the department.

2.3(135)T.II Quasi-public surface water supplies. All quasi-public surface water supplies shall comply with the requirements for approval by the department.

2.3(1) Plans and specifications for any new construction or for reconstruction or improvement of any existing supply shall be submitted to the department before construction begins.

2.3(2) The water shall not contain an excessive amount of soluble mineral substance, nor excessive amounts of any chemicals employed in treatment. It should be clear, colorless, odorless and pleasant to the taste. It shall be equal in bacteriological quality to the U. S. Public Health Service Drinking Water Standards 1946, as published in Reprint 2697 from the public health reports on file in the office of the department.

2.4(135)T.II Quasi-public ground water supplies. All quasi-public ground water supplies shall comply with the following requirements:

2.4(1) Cisterns. Cistern supplies consisting of roof or other surface run-off water shall not be used for drinking or culinary purposes.

2.4(2) Wells and springs.

a. Location. Wells must be located on ground at least one foot higher than the ground surrounding within a fifteen-foot radius.

On grounds subject to surface flood water, ground must be filled within a twenty-five-foot radius of the well to an elevation at least two feet higher than the highest known flood level. No sewers or drains of any kind (except the pump pit drain) shall be permitted within a ten-foot radius of the well or spring. This also applies to basement floor drains. Sewers and drains farther than ten feet, but within fifty feet of the well or spring shall be extra heavy cast iron pipe with calked lead joints.

No septic tanks shall be permitted within fifty feet of the well or spring.

Sewers and drains farther than fifty feet but within seventy-five feet of the well or spring shall be cast iron with lead joints or vitrified clay pipe with joints of calked hemp and cement or other approved jointing material.

No open jointed sewers, drains, disposal field, cesspools, privies, leaching pits, barn yards, pig pens, or other such sources of pollution shall be permitted within seventy-five feet of the well or spring except by special permission from the department.

b. Construction. The well or spring shall be constructed in accordance with the recommendations outlined in Iowa Public Health Bulletin No. 40-1, "Sanitary Standards for Hand Pumped Wells," or equal as approved by the department.

c. Pump setting.

(1) *Mechanically driven pumps.* Pumps shall be set in compliance with the details of construction shown by the sketches available from the department, or equal details as approved by the department.

Pumps set above the ground with underground discharge shall be installed wherever feasible.

A watertight seal shall be provided at the top of the well between the casing and drop pipe and between the concrete pedestal and pump base. Nonhardening asphalt, lead, or cement grout may be used as the sealing material. Certain patented seals may also be used provided they are approved by the department.

Vents shall terminate in a down-turned ell with lower end not less than twenty-four inches above the floor of pump pit or basement nor less than six inches above the pump house floor when the well terminates above the ground, and provided with a twenty-mesh copper screen.

(2) *Hand pumps.* Hand pumps shall be set as described in Iowa Public Health Bulletin No. 40-1, "Sanitary Standards for Hand Pumped Wells," or equal setting as approved by the department.

d. Air-lift systems. The air intake for any air-lift system or mechanical aerating apparatus shall be at least six feet above the floor surface if indoors, and ten feet above the ground if out of doors. The air intake shall be so constructed as to prevent the entrance of birds, insects, dust, rain, snow, or other contaminating material. Every air-lift system shall be equipped with effective oil traps, tanks, or filters to prevent oil from entering the water.

e. Water lubrication of pump bearings. Water lubricated pump bearings situated in any well below the pump-room floor shall be lubricated with water taken from within the well, or from the reservoir or distribution system supplied with water from the original source of the water supply, or in such other manner as may be approved by the department.

f. Priming of power pumps. Water for priming pumps on any water system shall be taken directly from the reservoir or distribution system which is supplied with water from the original source of the water supply or from another supply approved by the department. Priming devices shall be so constructed as not to expose the water to dust, drippings, or other sources of contamination.

g. Priming of hand pumps; buckets. No hand-operated type of pump or cylinder which requires priming shall be used. No pail and rope, bailer, or chain-bucket systems shall be used.

h. Treatment. Ground water supplies which do not comply with the bacteriological requirements of the U. S. public health service Drinking Water Standards 1946 shall be

treated by methods approved by the department or, if it is impossible by any method of treatment to secure compliance with said requirements, said well shall be abandoned, sterilized and sealed by filling with puddled clay or other impervious material up to the ground surface.

i. Disinfection and sampling of new or accidentally contaminated water supplies. New water supplies and water supplies which may have become contaminated accidentally or otherwise shall be thoroughly disinfected before being placed in use. Disinfection shall consist of first thoroughly flushing the pump and piping then adding a sufficient amount of chlorine to maintain a residual of at least twenty-five parts per million in the chlorinated water in contact with the well, reservoir, pump, and piping for a period of not less than twenty-four hours. The chlorinated water may then be pumped to waste. After all traces of free chlorine have disappeared from the water, a sample shall be examined bacterially at a laboratory approved by the department, and no water shall be used from such supply for drinking or culinary purposes until a satisfactory analysis is obtained or unless the water is treated in such manner as to make it bacterially satisfactory.

j. Connection with unsafe water sources forbidden. There shall be no cross-connection between any drinking, culinary, or ablutionary water supply and any other water supply which does not comply with these requirements.

k. Outlets from unsafe water supplies required to be sealed or labeled. All outlets from water sources accessible to the public which do not comply with these requirements shall be sealed, locked, or, at the discretion of the health officer, be provided with a permanent and easily readable tag or label reading "Unsafe Water. Do Not Drink." Removal of said label or tag except by permission of the health officer shall be deemed a violation of these rules.

l. Common drinking cups. The use of common drinking cups is prohibited.

[Filed prior to July 1, 1952]

CHAPTER 3

SEWAGE, INDUSTRIAL WASTES, AND EXCRETA DISPOSAL

3.1(135)T.II General. Wherever a sanitary sewer is available all sewage or industrial wastes shall be discharged into such sewer.

3.2(135)T.II Requirements when discharged into surface waters. All sewage and industrial wastes which are discharged into any surface water shall be treated in such a manner as will conform with the requirements of the department.

3.2(1) Plans and specifications for any new construction or for reconstruction or improvement of any existing sewerage system or

treatment plant shall be submitted to the department before construction begins. This also applies to sewer extensions.

3.3(135)T.II Requirements when used for irrigating purposes. All sewage or sewage plant effluents used for irrigating purposes shall be treated in such manner as will conform with the requirements of the department. No sewage or sewage effluents shall be used for irrigating purposes without a written permit from the said department.

3.4(135)T.II Requirements when discharged into the soil. No excreta or sewage shall be discharged into the soil except in compliance with the following requirements:

3.4(1) Requirements for water carriage systems.

a. Influent sewers.

(1) *Type.* Influent sewers used to conduct sewage from a building to a private sewage treatment plant shall be constructed of cast iron, vitrified clay, or concrete sewer pipe with calked lead, bitumen, cement or other approved joints, provided that all portions of such sewer lying within fifty feet of any well or other source of drinking water shall be cast iron pipe with calked lead joints.

(2) *Size.* Such influent sewers shall be not less than four inches in diameter.

(3) *Grade.* Such influent sewers shall be laid to a minimum grade of twelve inches per one hundred feet.

(4) *Manholes.* A manhole shall be provided at each change in direction or grade.

b. Grease interceptors. Grease interceptors of a type approved by the department shall be installed between the building and treatment plant for all except single residence installation. In case of restaurants, or other establishments which discharge large quantities of grease, the grease interceptor shall be located as close as practicable to the point at which the grease enters the influent sewer.

c. Septic tanks. All septic tanks shall discharge into a subsurface tile system or other type of filter except where written permission is obtained from the department to discharge into a stream or leaching pit. Septic tanks shall comply with the following requirements:

(1) *Location.* Septic tanks shall be located at least fifty feet, or such greater distance as may be specified by the department, from any well, spring, or other water supply structure, and, if possible, upon ground sloping downward therefrom.

(2) *Capacity.* Every compartment shall have a minimum effective (liquid) capacity of one hundred twenty-five gallons, but in no case shall the total capacity of the unit below the water line be less than five hundred gallons.

(3) *Construction details.* Septic tanks shall conform in detail with the recommendations stated in the department publication

"Residential Sewage Treatment Plants" or equal as approved by the department.

(4) *Construction material.* Septic tanks shall be constructed of concrete, corrosion resisting metal or other impervious material providing that metal tanks shall have a minimum wall thickness of fourteen gauge.

(5) *Manholes.* All septic tanks with solid concrete covers shall be provided with at least one manhole at least twenty-two inches in diameter, and said manhole shall extend to the surface of the ground if the earth fill above the septic tank is more than twelve inches deep.

d. Dosing tanks and automatic siphons. All proposed installations of septic tanks of one thousand gallons or more shall be provided with a dosing tank and automatic siphon or siphons of a type approved by the department unless otherwise specifically approved by the department. The department may require dosing tanks and automatic siphons with septic tanks of smaller capacity.

e. Subsurface tile systems. Subsurface tile systems shall comply with the following requirements:

(1) *Location.* Subsurface tile systems used for disposal of settled sewage of wastes shall be located at least seventy-five feet from any well or other source of drinking water supply, except in creviced limestone or other porous formations the minimum distance shall be specified by the department. Such tile systems shall not be located within twenty-five feet of any stream or open ditch except when a collector tile is installed below the distributor tile and the intervening space is filled with at least twelve inches of coarse sand or other approved filtering material.

(2) *Construction.* Subsurface tile systems shall conform to the construction details shown in the department publication, "Residential Sewage Treatment Plants" or equal as approved by the department, except that shorter total lengths of tile lines may be permitted for systems serving public and quasi-public establishments if written approval is obtained from the department.

f. Other types of sewage or industrial waste treatment, where permitted or required, shall be installed only after plans and specifications for each project have been approved by the department.

3.4(2) Requirements for earth pit toilets. All earth pit toilets hereafter constructed or required by the health officer to be reconstructed shall comply with the following requirements:

a. Location. Earth pit toilets shall not be installed in cavernous or loosely stratified formations, and shall be located at least seventy-five feet, or other distances specified by the department, from any well or other source of drinking water, and if possible upon ground sloping downward therefrom.

b. Construction. The details of construction shall comply with the plans and specifica-

tions shown in the department publication, "The Sanitary Privy," or equal as approved by the department.

3.4(3) Requirements for impervious vault toilets. All impervious vault or pit toilets hereafter constructed or required by the health officer to be reconstructed shall comply with the following requirements:

a. Location. Impervious vault toilets shall not be located within fifty feet of any well or other source of drinking water.

b. Construction material. The vault or pit shall be constructed of impervious concrete at least six inches thick. The superstructure, including floor slab, seat riser, seat cover, and building shall comply with the plans and specifications for earth pit privies as shown in the department publication "The Sanitary Privy," or equal as approved by the department. The vault or pit shall be provided with a cleanout opening fitted with a fly-tight cover.

3.5(135)T.II Maintenance. The following shall be considered defects in pit toilet installations (and sufficient cause for requiring their improvement):

3.5(1) Evidence of caving around the edges of the pit.

3.5(2) Signs of overflow or other evidence that the pit is full.

3.5(3) Seat covers open.

3.5(4) Broken, perforated, or unscreened vent pipe.

3.5(5) Insanitary toilet building.

3.5(6) Evidence of light entering pit except through seat when seat cover is raised or except through cleanout opening when lid is raised.

3.6(135)T.II Requirements for leaching pits (dry wells or cesspools). Leaching pits shall not be used for receiving sanitary sewage or industrial wastes but may be used for kitchen wastes, household laundry wastes, cellar or basement drainage and other similar waste water only when complying with the following requirements:

3.6(1) Location. Leaching pits shall not be located within seventy-five feet of any well or other source of drinking water or within twenty-five feet of any stream or open ditch.

3.6(2) Construction. Leaching pits when used for disposal of kitchen wastes shall contain at least one and one-half cubic yards of crushed rock or gravel below the inlet and when used for laundry wastes or basement drainage shall contain at least three cubic yards of crushed rock or gravel below the inlet.

Leaching pits shall be covered with not less than twelve inches and not more than twenty-four inches of loose filled earth.

Leaching pits shall not penetrate the soil to a depth within three feet above the ground water stratum nor shall the total depth exceed twelve feet.

3.7(135)T.II Requirements for chemical toilets. All chemical toilets hereafter constructed or hereafter required to be reconstructed shall comply with the following requirements:

3.7(1) Tank. Chemical toilets shall have a receiving tank of impervious material with an opening easily accessible for cleaning. Metal tanks shall have a minimum wall thickness of fourteen gauge.

3.7(2) Toilet bowl. The toilet bowl shall be constructed of impervious and not readily corrodible material and shall be elevated above the receiving tank sufficiently to avoid splashing the user.

3.7(3) Vent. The tank and bowl shall be vented with screened pipe at least three inches in diameter, preferably constructed of cast iron, extending on an angle not less than thirty degrees with the horizontal or vertically to a point at least two feet above the roof.

3.7(4) Mixing and chemical charge. The tank shall be equipped with a mixing device and shall be charged with a chemical or chemicals of bactericidal nature and concentration. Chemical recharges shall be added and mixed with the contents frequently to maintain a bactericidal strength and to prevent disagreeable odors.

3.7(5) Toilet rooms. Chemical toilets shall be located in toilet rooms which are well lighted and ventilated and kept clean. Tank clean-outs shall not be placed in basements.

3.7(6) Final disposal of tank contents. The tank contents shall be disposed of by burning, burial, or by discharge into a leaching pit located and constructed in accordance with these rules.

3.8(135)T.II Requirements for comfort stations and toilet rooms. All comfort stations and toilet rooms located in public or quasi-public establishments or on grounds adjacent thereto for the use of the general public or for the patrons of such establishments, shall comply with the following requirements:

3.8(1) Plumbing. All plumbing work and fixtures hereinafter installed shall comply with the local plumbing ordinance or with the state plumbing code where no local plumbing ordinance is in effect.

3.8(2) Water pressure. The water pressure shall be sufficient for effective flushing of toilets, urinals, and other fixtures equipped with flushing devices.

3.8(3) Toilet rooms. All toilets and urinals shall be located in rooms provided with natural or artificial illumination of three foot-candles intensity on the floor surface and with natural or artificial ventilation affording at least one air change every seven minutes. All toilet rooms shall be maintained in good repair and in a clean and sanitary condition, and shall be accessible to approved handwashing facilities.

3.8(4) *Approved handwashing facilities.* Approved handwashing facilities shall consist of a lavatory complying with the requirements of 3.8(3), soap in a suitable dispensing container and single service paper or cloth towels. Cloth towels shall be thoroughly laundered and sterilized before making available for reuse. Roller cloth towels shall be prohibited.

3.8(5) *Common drinking cups.* Common drinking cups shall be prohibited.

[Filed prior to July 1, 1952]

CHAPTER 4

MILK AND MILK PRODUCTS

4.1(135)T.II The production, processing and distribution of milk and milk products are by law under the jurisdiction of the state department of agriculture.

Cities and towns also are granted by section 368.25 of the Code, the power to adopt ordinances pertaining to milk sanitation. It is therefore suggested that cities and towns regulate production, transportation, processing, handling, sampling, examination, grading, labeling, regrading and sale of milk and milk products, the inspection of dairy herds, dairies and milk plants, the issuing and revocation of permits to milk producers and distributors, the placarding of restaurants and other establishments serving milk or milk products in accordance with the terms of the unabridged form of the 1939 edition of the Milk Ordinance and Code recommended by the United States public health service, a copy of which is on file with the department or which may be procured from the United States public health service or the Superintendent of Documents, Washington, D.C.

[Filed prior to July 1, 1952]

CHAPTER 5

EATING AND DRINKING ESTABLISHMENTS

5.1(135)T.II Hotels, restaurants and food establishments are regulated under chapter 170 of the Code, the administration of which comes under the state department of agriculture.

Cities and towns also have the power under sec. 5743, Code of Iowa, 1939 [§368.6, C. '50], to regulate hotels, restaurants and eating houses. It is suggested that cities and towns under this authority regulate sanitation pertaining to the inspection, grading, regrading, and placarding of eating and drinking establishments, the issuing and revocation of permits for the operation of such establishments, the sale of adulterated, misbranded, or unwholesome food and drink, and the enforcement of this code shall be regulated in accordance with the terms of the unabridged form of the 1940 edition of the Ordinance Regulating Eating and Drinking Establishments recommended by the U. S.

public health service, a copy of which is on file with the department, or which may be procured from the U. S. public health service or the Superintendent of Documents, Washington, D. C.

[Filed prior to July 1, 1952]

CHAPTER 6

SWIMMING POOLS AND BATHING PLACES

6.1(135)T.II General. All public swimming pools, wading pools, and bathhouses installed in connection with swimming or wading pools, which are hereafter constructed or extensively reconstructed, or improved shall comply with the following requirements:

6.1(1) *Plans and specifications.* Plans and specifications for new construction, reconstruction, or improvements shall be submitted to the department for approval before construction begins.

6.1(2) *Design and construction.* Approval by the department shall be based on the published "Policies Governing the Design and Construction of Swimming Pools."

6.2(135)T.II Operation and maintenance. All swimming pools, wading pools and bathhouses installed in connection with swimming pools or wading pools shall be operated and maintained in compliance with the published "Policies Governing the Operation and Maintenance of Swimming Pools."

[Filed prior to July 1, 1952]

CHAPTER 7

GARBAGE AND REFUSE

7.1(135)T.II Definitions.

7.1(1) *Garbage.* The term "garbage" shall be interpreted to mean all putrescible waste, except sewage and body wastes, including vegetable and animal offal and carcasses of dead animals, but excluding recognized industrial by-products, and shall include all such substances from all public and private establishments and from all residences.

7.1(2) *Refuse.* The term "refuse" shall include all nonputrescible wastes.

7.2(135)T.II Accumulation of garbage and refuse. No owner or lessee of any public or private premises shall permit to accumulate upon his premises any garbage or refuse except in covered containers approved by the health officer. Such containers shall be constructed in such manner as to be strong, not easily corrodible, rodent proof, insect proof, and shall be kept covered at all times except when garbage and refuse is being deposited therein or removed therefrom. In case garbage and one or more types of refuse are disposed of separately, separate containers may be required by the health officer.

7.3(135)T.II Collection of garbage and refuse.

7.3(1) *Collection interval.* All garbage and refuse shall be collected sufficiently frequent to prevent nuisance.

7.3(2) *Permits.* No person, firm, or corporation shall collect garbage or refuse who does not possess a permit from the health officer.

7.3(3) *Type of collection vehicles.* The collection of garbage and refuse shall be by means of covered vehicles approved by the health officer.

7.4(135)T.II *Disposal of garbage and refuse.* All disposal of garbage and refuse shall be by a method or methods specifically approved by the department, provided that said method or methods shall include the maximum practicable rodent, insect, and nuisance control at the place or places of disposal.

7.5(135)T.II *Dead animals.* Disposal of dead animals comes under the jurisdiction of the state department of agriculture as specified in chapter 167 of the Code.

[Filed prior to July 1, 1952]

CHAPTER 8

SANITATION OF HABITABLE BUILDINGS

8.1(135)T.II *General.* Every dwelling which is in whole or in part leased by the owner or his agent, except hotels and other establishments which are licensed by the department of agriculture shall comply with the following requirements, and in addition all dwellings shall conform to the requirements of the state housing law in all cities where applicable. The owner or lessor shall be deemed responsible for compliance with said requirements.

8.1(1) *Room size.* No habitable room in such a dwelling hereinafter constructed shall have a floor area of less than eighty sq. ft. nor shall the ceiling height be less than seven and one-half feet.

8.1(2) *Heating.* Every such building shall be equipped with heating equipment capable of maintaining every habitable room thereof at a temperature of at least 70°F. whenever occupied.

8.1(3) *Lighting.* Every such building shall be so equipped as to provide every habitable room thereof with artificial lighting equipment reasonably uniformly distributed and of sufficient intensity to produce illumination of six foot-candles on the floor area, and at least ten foot-candles at certain points for reading, study, sewing, and similar tasks. Hallways, stairways, and similar passageways shall be provided with one or more foot-candles illumination.

Every habitable room located in any such building shall be provided with one or more windows opening to the outside air and equivalent in glass area to at least eight percent of the floor area of such room in the case of exist-

ing buildings, and to at least one-eighth of the floor area of said room in the case of buildings or additions hereafter constructed.

8.1(4) *Ventilation.* Every habitable room located in any such building shall be provided with an aggregate openable window area of at least four percent of the floor area for existing buildings and of at least six percent for buildings and additions hereafter constructed. The requirements of this item shall not apply to buildings having adequate provisions for artificial ventilation.

8.1(5) *Plumbing and excreta disposal.* All plumbing in such buildings shall comply with the requirements of the local plumbing ordinance. Where no local ordinance is in effect, the plumbing shall comply with the state plumbing code.

Every such building to which running water and sewage disposal are available shall be provided with at least one lavatory, one water closet, one bathtub or shower, and one kitchen sink.

Every such building to which running water and sewage disposal are not available shall be provided with at least one pit toilet or chemical toilet seat for every fifteen occupants.

8.1(6) *Screening.* Every such building which is located in an area in which flies and mosquitoes have not otherwise been effectively controlled shall have all windows and doors to the outside equipped with screens of not less than sixteen meshes to the inch, which are so maintained as to effectively prevent the entrance into the building of flies and mosquitoes, provided that all outside screen doors shall open outward and be self-closing and provided that effective means other than screens may be substituted therefor when specifically approved by the health officer.

8.1(7) *Overcrowding.* If any room in such dwelling is overcrowded the health officer may order the number of persons sleeping or living in said room to be so reduced that there shall not be less than four hundred cubic feet of air to each adult and two hundred cubic feet of air to each child under twelve years of age occupying such room.

[Filed prior to July 1, 1952]

CHAPTER 9

TOURIST CAMPS, TRAILER CAMPS, CABIN CAMPS, CONSTRUCTION CAMPS, AND SIMILAR ESTABLISHMENTS AND AREAS

9.1(135)T.II *General.* All tourist camps, trailer camps, cabin camps, construction camps, and similar establishments and areas available for residence, camp, or picnic use which are maintained, operated, or leased, free of charge or upon payment of fees, by any municipality, community, institution, corporation, association, firm, or person, except hotels and other establishments which are licensed by the state department of agriculture shall comply with the following requirements:

Trailers may be occupied as temporary residence (except as prohibited by the housing law and local ordinances) only when parked in a trailer camp or other area with facilities complying with the provision of this code.

9.1(1) Supervision.

a. The owner or authorized agent shall maintain in good repair and appearance all sanitary facilities and appliances on the premises, and shall be personally liable and responsible for the same. It shall be the duty of the management to bring prompt action as may be necessary to enforce these rules or, if necessary, to eject from the premises any persons who willfully or maliciously damage the sanitary facilities and appliances provided or do not strictly adhere to these or other camp regulations.

b. At least one competent caretaker shall be responsible for the supervision of the premises and shall make necessary routine inspections and exercise all duties necessary in the maintenance of the premises in a strictly sanitary manner.

c. Adequate equipment for maintaining the premises in a strictly sanitary manner at all times shall be provided and maintained by the owner or management.

9.1(2) Space. In existing mobile home parks each mobile home space shall be at least eight feet wider than the mobile home. In mobile home parks hereafter constructed, changed or added to, each mobile home space shall be clearly marked, contain not less than one thousand square feet, be at least twenty-five feet wide and abut a driveway or have clear, unobstructed access to a public highway or alley. In new parks the mobile home shall be parked at least five feet from the boundaries of the park and ten feet from a public street or alley, and ten feet from any building, except for the building housing individual sanitary facilities for each mobile home space. In new parks there shall be a space of at least fifteen feet between the sides of every mobile home and at least ten feet between the ends of every mobile home. Mobile home parks, hereafter constructed, shall be well drained and located in areas free from flooding, marshes, swamps, or other potential breeding places for insects or rodents.

9.1(3) Fires. All fires shall be made in stoves or other equipment provided for that purpose. Open unattended fires shall not be permitted.

9.1(4) Water supply. There shall be provided within two hundred feet of any trailer space or cabin, accessible at all times, a water supply which complies with the requirements of Chapter 2T.II entitled "Water Supplies."

9.1(5) Excreta and sewage. There shall be provided at each such camp, establishment or area, accessible at all times, a method of excreta disposal which complies with the requirements of Chapter 3T.II entitled "Sewage, Industrial Wastes and Excreta Disposal."

9.1(6) Garbage and refuse. Every such camp, establishment, or area shall comply with the requirements of Chapter 7T.II entitled "Garbage and Refuse."

9.1(7) Room size, heating, lighting, ventilation, plumbing, screening, and overcrowding. All cabins and other habitable buildings shall comply with the requirements of Chapter 8T.II. A group of tourist camp buildings under the same ownership may connect to a common house sewer.

Trailers shall comply with the minimum floor area for habitable rooms. However, the ceiling height may be reduced to six and one-half feet provided adequate cross-ventilation is provided by windows on both sides of the trailer.

9.1(8) Toilets and washing facilities. Separate toilets shall be provided for males and females, one for each twenty-five males and one for each twenty-five females. Where water is available under pressure, separate hand-washing facilities which comply with the requirements of Chapter 3T.II shall be provided for males and for females or in each cabin or habitable building. Where water under pressure is not available, a wash basin, soap, and one towel for each person shall be provided at each cabin or other permanent habitable building. All lavatories, bathtubs, and shower baths shall be maintained in a strictly sanitary condition. Toilets and toilet rooms shall comply with the requirements of Chapter 3T.II except that no sewage disposal facilities shall be located within fifty feet of any cabin or trailer. Where fly-tight, sanitary privies are provided for trailer camps, they shall be constructed with the seat hinged to permit dumping soil can or chemical toilet contents into the pit. The location of all toilets or privies shall be plainly indicated by appropriate signs.

All trailers with built-in toilets shall be provided with fly-tight, leak-proof metal receptacles for containing human excrement and said receptacle shall contain sufficient chemicals to render the contents free from creating a fly or odor nuisance.

The owner or management of all camp sites shall provide a satisfactory depository for the contents of trailer house chemical toilets, and also shall provide washing facilities for the chemical toilets in a sanitary manner.

9.1(9) Communicable disease. It shall be the duty of all camp owners or managers, or other persons knowing or suspecting the presence of persons in the camp inflicted with any communicable disease to report the said condition immediately to the local health officer.

9.1(10) Permanent register. A permanent register of all guests and patrons of the premises shall be maintained and open to the inspection of the health officer or representative of the department at all times.

[Filed prior to July 1, 1952]

TITLE III
STATE PLUMBING CODE

CHAPTER 1
DEFINITIONS

1.1(135)T.III General.

1.1(1) Meaning. For the purpose of this code, the following terms shall have the meaning indicated in this chapter.

1.1(2) Scope. No attempt is made to define ordinary words which are used in accordance with their established dictionary meaning except where the word has been loosely used and it is necessary to define its meaning as used in this code to avoid misunderstanding.

1.2(135)T.III Definitions of terms.

1.2(1) Administrative authority. The administrative authority is the individual official, board, department, or agency established and authorized by law to administer and enforce the provisions of the plumbing ordinance as adopted or amended. [See section 368.17 of the Code.]

1.2(2) Air gap. An air gap in a water-supply system is the unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet supplying water to a tank, plumbing fixture, or other device and the flood-level rim of the receptacle.

1.2(3) Anchors. See supports.

1.2(4) Approved. Approved means accepted or acceptable under an applicable specification stated or cited in this code, or accepted as suitable for the proposed use under procedures and powers of the state department of health.

1.2(5) Area drain. An area drain is a receptacle designed to collect surface or rain water from an open area.

1.2(6) Backflow. Backflow is the flow of water or other liquids, mixtures, or substances into the distributing pipes of a potable supply of water from any source or sources other than its intended source.

1.2(7) Backflow preventer. A backflow preventer is a device or means to prevent backflow into the potable water system.

1.2(8) Back-siphonage. Back-siphonage is the flowing back of used, contaminated, or polluted water from a plumbing fixture or vessel into a water supply pipe due to a negative pressure in such pipe. See backflow.

1.2(9) Backflow of sewage or wastes. The term backflow is also used to mean the flowing back of liquid wastes or sewage.

1.2(10) Battery of fixtures. A "battery of fixtures" is any group of two or more similar adjacent fixtures which discharge into a common horizontal waste or soil branch.

1.2(11) Boiler blow-off. A boiler blow-off is an outlet on a boiler to permit emptying or discharge of sediment.

1.2(12) Branch. A branch is any part of the piping system other than a main, riser, or stack.

1.2(13) Branch, fixture. See fixture branch.

1.2(14) Branch, horizontal. See horizontal branch.

1.2(15) Branch interval. A branch interval is a length of soil or waste stack corresponding in general to a story height but in no case less than eight feet, within which the horizontal branches from one floor or story of a building are connected to the stack.

1.2(16) Branch vent. A branch vent is a vent connecting one or more individual vents with a vent stack or stack vent.

1.2(17) Building. A building is a structure built, erected, and framed of component structural parts designed for the housing, shelter, enclosure, or support of persons, animals, or property of any kind.

1.2(18) Building drain. The building (house) drain is that part of the lowest piping of a drainage system which receives the discharge from soil, waste, and other drainage pipes inside the walls of the building and conveys it to the building (house) sewer beginning three feet outside the building wall.

1.2(19) Building sewer. The building (house) sewer is that part of the horizontal piping of a drainage system which extends from the end of the building drain and which receives the discharge of the building drain and conveys it to a public sewer, private sewer, individual sewage-disposal system, or other point of disposal.

1.2(20) Building storm drain. A building (house) storm drain is a building drain used for conveying rain water, surface water, ground water, subsurface water, or other similar discharge to a building storm sewer or a combined building sewer, extending to a point not less than three feet outside the building wall.

1.2(21) Building storm sewer. A building (house) storm sewer is the extension from the building storm drain to the public storm sewer, combined sewer, or other point of disposal.

1.2(22) Building subdrain. A building (house) subdrain is that portion of a drainage system which cannot drain by gravity into the building sewer.

1.2(23) Circuit vent. A circuit vent is a branch vent that serves two or more traps and extends from in front of the last fixture connection of a horizontal branch to the vent stack.

1.2(24) Code. The word "code" when used alone shall mean these regulations, subsequent amendments thereto, or any emergency rule or regulation which the administrative authority having jurisdiction may lawfully adopt.

1.2(25) Combination fixture. A combination fixture is a fixture combining one sink and tray or a two- or three-compartment sink or tray in one integral unit.

1.2(26) Combined building sewer. A combined building sewer receives storm water and sewage.

1.2(27) Common vent. A common vent is a vent connection at the junction of two fixture drains and serving as a vent for both fixtures.

1.2(28) Conductor. See leader.

1.2(29) Continuous vent. A continuous vent is a vertical vent that is a continuation of the drain to which it connects.

1.2(30) Continuous waste. A continuous waste is a drain from two or three fixtures connected to a single trap.

1.2(31) Cross-connection. A cross-connection is any physical connection or arrangement between two otherwise separate piping systems, one of which contains potable water and the other water of unknown or questionable safety, whereby water may flow from one system to the other, the direction of flow depending on the pressure differential between the two systems. See backflow and back-siphonage.

1.2(32) Dead-end. A dead-end is a branch leading from a soil, waste, or vent pipe, building drain, or building sewer, which is terminated at a developed distance of two feet or more by means of a plug or other closed fitting.

1.2(33) Developed length. The developed length of a pipe is its length along the center line of the pipe and fittings.

1.2(34) Diameter. Unless specifically stated, the term "diameter" is the nominal diameter as designated commercially.

1.2(35) Double offset. A double offset is two changes of direction installed in succession or series in continuous pipe.

1.2(36) Downspout. See leader.

1.2(37) Drain. A drain is any pipe which carries waste water or water-borne wastes in a building drainage system.

1.2(38) Drainage system. A drainage system (drainage piping) includes all the piping within public or private premises, which conveys sewage, rain water, or other liquid wastes to a legal point of disposal, but does not include the mains of a public sewer system or a private or public sewage-treatment or disposal plant.

1.2(39) Dual vent. See common vent.

1.2(40) Durham system. Durham system is a term used to describe soil or waste systems where all piping is of threaded pipe, tubing or other such rigid construction, using recessed drainage fittings to correspond to the types of piping.

1.2(41) Effective opening. The effective opening is the minimum cross-sectional area

at the point of water-supply discharge, measures are expressed in terms of:

a. Diameter of a circle.

b. If the opening is not circular, the diameter of a circle of equivalent cross-sectional area. (This is applicable to air gap.)

1.2(42) Fixture branch. A fixture branch is a pipe connecting several fixtures.

1.2(43) Fixture drain. A fixture drain is the drain from the trap of a fixture to the junction of that drain with any other drain pipe.

1.2(44) Fixture supply. A fixture supply is a water-supply pipe connecting the fixture with the fixture branch.

1.2(45) Fixture unit. A fixture unit is a design factor so chosen that the load producing values of the different plumbing fixtures can be expressed approximately as multiples of that factor.

1.2(46) Fixture-unit flow rate. Fixture-unit flow rate is the total discharge flow in g.p.m. of a single fixture divided by seven and one-half which provides the flow rate of that particular plumbing fixture as a unit of flow. Fixtures are rated as multiple of this unit of flow.

1.2(47) Flood level. See flooded.

1.2(48) Flood-level rim. The flood-level rim is the top edge of the receptacle from which water overflows.

1.2(49) Flooded. A fixture is flooded when the liquid therein rises to the flood-level rim.

1.2(50) Flush valves. A flush valve is a device located at the bottom of the tank for the purpose of flushing water closets and similar fixtures.

1.2(51) Flushometer valve. A flushometer valve is a device which discharges a predetermined quantity of water to fixtures for flushing purposes and is actuated by direct water pressures.

1.2(52) Frostproof closet. A frostproof closet (prohibited) is a hopper that has no water in the bowl and has the trap and the control valve for its water supply installed below the frost line.

1.2(53) Grade. Grade is the slope or fall of a line of pipe in reference to a horizontal plane. In drainage it is usually expressed as the fall in a fraction of an inch per foot length of pipe.

1.2(54) Grease interceptor. See interceptor.

1.2(55) Grease trap. See interceptor.

1.2(56) Hangars. See supports.

1.2(57) Horizontal branch. A horizontal branch is a drain pipe extending laterally from a soil or waste stack or building drain, with or without vertical sections or branches, which receives the discharge from one or more fixture drains and conducts it to the

soil or waste stack or to the building (house) drain.

1.2(58) Horizontal pipe. A horizontal pipe is any pipe or fitting which is installed in a horizontal position or which makes an angle of less than 45° with the horizontal.

1.2(59) House drain. See building drain.

1.2(60) House sewer. See building sewer.

1.2(61) Indirect waste pipe. An indirect waste pipe is a pipe that does not connect directly with the drainage system but conveys liquid wastes by discharging into a plumbing fixture or receptacle which is directly connected to the drainage system.

1.2(62) Individual vent. An individual vent is a pipe installed to vent a fixture trap and which connects with the vent system above the fixture served or terminates in the open air.

1.2(63) Industrial wastes. Industrial wastes are liquid wastes resulting from the processes employed in industrial establishments which do not contain domestic sewage.

a. Liquid wastes. Liquid wastes are the discharges from any fixture, appliance, area, or appurtenance, which do not contain fecal matter.

1.2(64) Interceptor. An interceptor is a device designed and installed so as to separate and retain deleterious, hazardous, or undesirable matter from normal wastes and permit normal sewage or liquid wastes to discharge.

1.2(65) Leader. A leader (downspout) is the water conductor from the roof to the building storm drain, combined building sewer, or other means of disposal.

1.2(66) Load factor. Load factor is the percentage of the total connected fixture unit flow rate which is likely to occur at any point in the drainage system. It varies with the type of occupancy, the total flow unit above this point being considered, and with the probability factor of simultaneous use.

1.2(67) Loop vent. A loop vent is the same as a circuit vent except that it loops back and connects with a stack vent instead of a vent stack.

1.2(68) Main. The main of any system of continuous piping is the principal artery of the system, to which branches may be connected.

1.2(69) Main sewer. See public sewer.

1.2(70) Main vent. The main vent is the principal artery of the venting system, to which vent branches may be connected.

1.2(71) Offset. An offset in a line of piping is a combination of elbows or bends which brings one section of the pipe out of line but into a line parallel with the other section.

1.2(72) Person. Person is a natural person, his heirs, executors, administrators, or assigns; and includes a firm, partnership or cor-

poration, its or their successors or assigns. Singular includes plural; male includes female.

1.2(73) Pitch. See grade.

1.2(74) Plumbing. Plumbing includes the practice, materials, and fixtures used in the installation, maintenance, extension, and alteration of all piping, fixtures, appliances, and appurtenances in connection with any of the following: Sanitary drainage or storm drainage facilities, the venting system and the public or private water-supply systems, within or adjacent to any building, structure, or conveyance; also the practice and materials used in the installation, maintenance, extension, or alteration of the storm-water, liquid wastes, or sewerage, and water-supply systems of any premises to their connection with any point of public disposal or other acceptable terminal.

1.2(75) Plumbing fixtures. Plumbing fixtures are installed receptacles, devices, or appliances which are supplied with water or which receive or discharge liquids or liquid-borne wastes, with or without discharge into the drainage system with which they may be directly or indirectly connected.

1.2(76) Plumbing inspector. See administrative authority.

1.2(77) Plumbing system. The plumbing system includes the water-supply and distribution pipes; plumbing fixtures and traps; soil, waste, and vent pipes; building drains and building sewers including their respective connections, devices, and appurtenances within the property lines of the premises, and water-treating or water-using equipment.

1.2(78) Pool. A pool is a water receptacle used for swimming or as a plunge or other bath, designed to accommodate more than one bather at a time.

1.2(79) Potable water. Potable water is water which is satisfactory for drinking, culinary, and domestic purposes, and meets the standards of the state department of health.

1.2(80) Private or private use. In the classification of plumbing fixtures, private supplies to fixtures in residences and apartments and to fixtures in private bathrooms of hotels and similar installations where the fixtures are intended for the use of a family or an individual.

1.2(81) Private sewer. A private sewer is a sewer privately owned and not directly controlled by public authority.

1.2(82) Public or public use. In the classification of plumbing fixtures, public applies to fixtures in general toilet rooms of schools, gymnasiums, hotels, railroad stations, public buildings, bars, public comfort stations, or places to which the public is invited or which are frequented by the public without special invitation, and other installations (whether pay or free) where a number of fixtures are

installed so that their use is similarly unrestricted.

1.2(83) Public sewer. A public sewer is a common sewer directly controlled by public authority.

1.2(84) Relief vent. A relief vent is a vent the primary function of which is to provide circulation of air between drainage and vent systems.

1.2(85) Return offset. A return offset is a double offset installed so as to return the pipe to its original alignment.

1.2(86) Rim. A rim is an unobstructed open edge of a fixture.

1.2(87) Riser. A riser is a water-supply pipe which extends vertically one full story or more to convey water to branches or fixtures.

1.2(88) Roof drain. A roof drain is a drain installed to receive water collecting on the surface of a roof and to discharge it into the leader (downspout).

1.2(89) Roughing-in. Roughing-in is the installation of all parts of the plumbing system which can be completed prior to the installation of fixtures. This includes drainage, water supply, vent piping, and the necessary fixture supports.

1.2(90) Sand interceptor. See interceptor.

1.2(91) Sanitary sewer. A sanitary sewer is a pipe which carries sewage and excludes storm, surface, and ground water.

1.2(92) Separator. See interceptor.

1.2(93) Septic tank. A septic tank is a watertight receptacle which receives the discharge of a drainage system or part thereof, and is designed and constructed so as to separate solids from the liquids, digest organic matter through a period of detention, and allow the settled sewage to discharge therefrom (usually) to some form of secondary treatment.

1.2(94) Secondary treatment. Secondary treatment is provided for septic tank effluent by one or a combination of the following means, including: A system of open-jointed or perforated lines, laid in soil capable of absorbing the liquid; by buried or open sand filters with or without collector tile; or by other soil absorption systems all designed to reduce the organic matter in the liquid and dispose of the liquid without nuisance or public health hazard.

1.2(95) Sewage. Sewage is any liquid waste containing animal or vegetable matter in suspension or solution, and may include liquids containing chemicals in solution.

a. Domestic sewage. Domestic sewage is the water-borne wastes derived from ordinary living processes.

1.2(96) Shall. The word "shall" is a mandatory term.

1.2(97) Side vent. A side vent is a vent connecting to the drain pipe through a fitting at an angle not greater than 45° to the vertical.

1.2(98) Slope. See grade.

1.2(99) Soil pipe. A soil pipe is any pipe which conveys the discharge of water closets, urinals, or fixtures having similar functions, with or without the discharge from other fixtures, to the building drain or building sewer.

1.2(100) Special waste pipe. See chapter 9,T.III.

1.2(101) Stack. A stack is the vertical main of a system of soil, waste, or vent piping.

1.2(102) Stack group. Stack group is a term applied to the location of fixtures in relation to the stack so that by means of proper fitting, vents may be reduced to a minimum.

1.2(103) Stack vent. Stack vent (sometimes called a waste vent or soil vent) is the extension of a soil or waste stack above the highest horizontal drain connected to the stack.

1.2(104) Stack venting. Stack venting is a method of venting a fixture or fixtures through the soil or waste stack.

1.2(105) Storm drain. See building storm drain.

1.2(106) Storm sewer. A storm sewer is a sewer used for conveying rain water, surface water, condensate, cooling water, or similar liquid wastes, exclusive of sewage and industrial waste.

1.2(107) Subsoil drain. A subsoil drain is a drain which receives only subsurface or seepage water and conveys it to a place of disposal.

1.2(108) Sump. A sump is a tank or pit which receives sewage or liquid waste, located below the normal grade of the gravity system and which must be emptied by mechanical means.

1.2(109) Supports. Supports, hangers, and anchors are devices for supporting and securing pipe and fixtures to walls, ceilings, floors, or structural members.

1.2(110) Trap. A trap is a fitting or device so designed and constructed as to provide, when properly vented, a liquid seal which will prevent the back passage of air without materially affecting the flow of sewage or waste water through it.

1.2(111) Trap seal. The trap seals is the maximum vertical depth of liquid that a trap will retain, measured between the crown weir and the top of the dip of the trap.

1.2(112) Vacuum breaker. See backflow preventer.

1.2(113) Vent pipe. See vent system.

1.2(114) Vent stack. A vent stack is a vertical vent pipe installed primarily for the purpose of providing circulation of air to and from any part of the drainage system.

1.2(115) Vent system. A vent system is a pipe or pipes installed to provide a flow of air to or from a drainage system or to provide a circulation of air within such system to protect trap seals from siphonage and back pressure.

1.1(116) Vertical pipe. A vertical pipe is any pipe or fitting which is installed in a vertical position or which makes an angle of not more than 45° with the vertical.

1.2(117) Waste. See industrial wastes and liquid wastes.

1.2(118) Waste pipe. A waste pipe is a pipe which conveys only liquid waste, free of fecal matter.

1.2(119) Water-distributing pipe. A water-distributing pipe in a building or premises is a pipe which conveys water from the water-service pipe to the plumbing fixtures and other water outlets.

1.2(120) Water main. The water (street) main is a water supply pipe for public or community use.

1.2(121) Water outlet. A water outlet, as used in connection with the water-distributing system is the discharge opening for the water (1) to a fixture; (2) to atmospheric pressure (except into an open tank which is part of the water-supply system); (3) to a boiler or heating system; (4) to any water-operated device or equipment requiring water to operate, but not a part of the plumbing system.

1.2(122) Water riser pipe. See riser.

1.2(123) Water-service pipe. The water-service pipe is the pipe from the water main or other source of water supply to the building served.

1.2(124) Water-supply system. The water-supply system of a building, or premises, consists of the water-service pipe, the water-distributing pipes, and the necessary connecting pipes, fittings, control valves and all appurtenances in or adjacent to the building or premises.

1.2(125) Wet vent. A wet vent is a vent which receives the discharge from waste other than water closets.

1.2(126) Yoke vent. A yoke vent is a pipe connecting upward from a soil or waste stack to a vent stack for the purpose of preventing pressure changes in the stacks.

[Filed prior to July 1, 1952; amended December 28, 1955, March 18, 1964]

CHAPTER 2

GENERAL REGULATIONS

2.1(135)T.III Conformance with code.

2.1(1) Minimum requirements. The provisions of this code shall be construed to establish minimum requirements. Local ordinances or rules and regulations may provide for higher, but not lower, standards, not inconsis-

ent with the provisions herein, as authorized by section 368.17 of the Code.

2.1(2) Applicability. The provisions of this code are applicable to the plumbing in buildings and premises within cities and towns and to plumbing in buildings and premises located outside the corporate limits of any city or town but which are served by individual connections to municipal water supply or sewer systems located inside the corporate limits.

2.2(135)T.III Horizontal drainage piping.

2.2(1) Uniform grade. Horizontal drainage piping shall be run in practical alignment at a uniform grade. [See 11.3(135)T.III for specific slopes.]

2.3(135)T.III Change in direction.

2.3(1) Fittings. Changes in direction in drainage piping shall be made by the appropriate use of 45° Y's, long-or-short-sweep quarter bends, sixth, eighth, or sixteenth bends, or by a combination of these or equivalent fittings. Single and double sanitary T's and quarter bends may be used in drainage lines only where the direction of flow is from the horizontal to the vertical.

2.3(2) Short sweeps. Short sweeps no less than three inches in diameter may be used in soil and waste lines where the change in direction of flow is from either the horizontal to the vertical or from the vertical to the horizontal and may be used for making necessary offsets between the ceiling and the next floor above.

2.4(135)T.III Fittings and connections.

2.4(1) Fittings prohibited. No double hub, double T, or double sanitary branch, twin ell, St. ell, or St. 45° ells shall be used on soil or waste lines. The drilling and burning of holes in, or the tapping of, house drains, soil, waste, or vent pipes, the use of saddle hubs and bends, and the welding or brazing of parts into pipes to make fittings, are prohibited. Sanitary crosses having at least twice the diameter of the branch opening may be used in a vertical position. Cast iron closet bends shall be used only in or underground.

2.4(2) Heel or side-inlet bend. A heel or side-inlet opening quarter bend shall not be used as a dry vent when the inlet is placed in a horizontal position.

2.4(3) Obstruction to flow. No fitting, connection, device, or method of installation which obstructs or retards the flow of water, wastes, sewage, or air in the drainage or venting systems in an amount greater than the normal frictional resistance to flow, shall be used unless it is indicated as acceptable in this code, or is approved by the administrative authority as having a desirable and acceptable function and as of ultimate benefit to the proper and continuing functioning of the plumbing system. The enlargement of a three-inch closet

bend or stub to four inches shall not be considered an obstruction. None of the methods described in 2.27(1-3)T.III shall be considered as restriction to flow.

2.5(135)T.III Repairs and alterations.

2.5(1) *Existing buildings.* In existing buildings or premises in which plumbing installations are to be altered, repaired, or renovated, deviations from the provisions of this code may be permitted, provided such deviations are found to be necessary, conform to the intent of this code and are approved in writing by the administrative authority. When a building is moved from one location to another no additional work or connection shall be made until the plumbing in said building is inspected and if necessary reconstructed to comply with this code. Nor shall additional plumbing work be installed in any building where there is defective or improperly installed plumbing until such defects have been repaired, renovated, replaced, or removed.

2.5(2) *Health or safety.* Wherever compliance with all the provisions of this code fails to eliminate or alleviate a nuisance which may involve health or safety hazards, the owner or his agent shall install such additional plumbing or drainage equipment as may be found necessary by the administrative authority.

2.6(135)T.III Sewer and water pipes.

2.6(1) *Separate trenches.* Water-service pipes, or any underground water pipes, shall not be run or laid in the same trench as the building sewer or drainage piping, except as provided in chapters 10T.III and 11T.III.

2.7(135)T.III Trenching, excavation, and backfill.

2.7(1) *Support of piping.* Buried piping shall be supported throughout its entire length.

2.7(2) *Tunneling and driving.* Tunneling may be done in yards, courts, or driveways of any building site.

2.7(3) *Open trenches.* All excavations required to be made for the installation of a building-drainage system, or any part thereof within the walls of a building, shall be open trench work. All such trenches and tunnels shall be kept open until the piping has been inspected, tested and accepted.

2.7(4) *Mechanical excavation.* Mechanical means of excavation may be used.

2.7(5) *Backfilling.* Adequate precaution shall be taken to insure proper compactness of backfill around piping without damage to such piping.

2.7(6) *Backfill material.* Trenches shall be backfilled in thin layers to twelve inches above the top of the piping with clean earth which shall not contain stones, boulders, cinder-fill, or other materials which would damage or break the piping or cause corrosive action. Mechanical devices such as bulldozers, graders, etc., may be then used to complete

backfill to grade. Fill shall be properly compacted.

2.8(135)T.III Structural safety.

2.8(1) *Safe condition required.* In the process of installing or repairing any part of a plumbing and drainage installation, the finished floors, walls, ceilings, tile work, or any other part of the building or premises which must be changed or replaced shall be left in a safe structural condition as determined by the proper administrative authority.

2.9(135)T.III Workmanship.

2.9(1) *Conformance.* Workmanship shall conform to generally accepted good practice.

2.10(135)T.III Protection of pipes.

2.10(1) *Breakage and corrosion.* Pipes passing under or through walls shall be protected from breakage. Pipes passing through or under cinder or concrete or other corrosive material, shall be protected against external corrosion by protective coating, wrapping, or other means which will prevent such corrosion.

2.10(2) *Cutting or notching.* No structural member shall be weakened or impaired by cutting, notching, or otherwise, except to the extent permitted by the proper administrative authority.

2.10(3) *Pipes through footings or foundation walls.* A soil or waste pipe, or building drain passing under a footing or through a foundation wall shall be provided with a relieving arch; or there shall be built into the masonry wall a pipe sleeve two pipe sizes greater than the pipe passing through or equivalent protection shall be provided.

2.10(4) *Freezing.* No water, soil or waste pipe shall be installed or permitted outside of a building or in an exterior wall unless adequate provision is made to protect such pipe from freezing where necessary.

2.11(135)T.III Damage to drainage system or public sewer.

2.11(1) *Hazardous materials prohibited.* No person shall deposit by any means into the building drainage system or sewer any ashes; cinders; rags; inflammable, poisonous, or explosive liquids, gases, oils; or any other material which would or could obstruct, damage, or overload such system or sewer, except as herein provided.

2.12(135)T.III Industrial waste.

2.12(1) *Treatment and disposal.* Waste detrimental to the public sewer system or detrimental to the functioning of the sewage-treatment plant shall be treated and disposed of as found necessary and directed by the administrative authority having jurisdiction.

2.13(135)T.III Sleeves.

2.13(1) *Exterior walls.* When directed, annular space between sleeves and pipes la-

cated in exterior walls shall be filled or tightly calked with coal tar or asphaltum compound, lead, or other material found equally effective and approved as such by the administrative authority.

2.14(135)T.III Ratproofing.

2.14(1) Exterior openings. All exterior openings provided for the passage of piping shall be properly sealed with snugly fitting collars of metal or other approved rat-proof material securely fastened into place.

2.14(2) Interior openings. Interior openings through walls, floors, and ceilings shall be rat-proofed as found necessary by the administrative authority.

2.15(135)T.III Used or secondhand equipment.

2.15(1) Conformance required. It shall be unlawful to purchase, sell, or install used equipment or material for plumbing installation unless it complies with the minimum standards set forth in this code.

2.16(135)T.III Condemned equipment.

2.16(1) Prohibited. Any plumbing equipment condemned by the administrative authority because of wear, damage, defects, or sanitary hazards, shall not be reused for plumbing purposes.

2.17(135)T.III Depth of building sewer and water service (outside of building).

2.17(1) Frost protection. Sewers and water-service piping shall be installed below the expected frost penetration.

2.18(135)T.III Piping in relation to footings.

2.18(1) Parallel. No piping shall be laid parallel to footings or outside bearing walls closer than three feet, except as may be approved by the administrative authority, upon a finding that a less distance is safe. Such piping installed deeper than footings or bearing walls shall be 45° therefrom, except as may be approved by the administrative authority, upon a finding that a greater angle is safe.

2.19(135)T.III Drainage below sewer level.

2.19(1) Installation. Drainage piping located below the level of the sewer shall be installed as provided for in chapters 10T.III and 11T.III.

2.20(135)T.III Connections to plumbing system required.

2.20(1) Adequate connections. All plumbing fixtures, drains, appurtenances, and appliances used to receive or discharge liquid wastes or sewage shall be connected properly to the drainage system of the building or premises, in accordance with the requirements of this code.

2.21(135)T.III Sewer required.

2.21(1) Connection. Every building in which plumbing fixtures are installed shall

have a connection to a public sewer or private sewer except as provided in 2.22(1)T.III.

2.22(135)T.III Individual or private sewage disposal system.

2.22(1) Individual system. When a public sewer is not available for use, sewage and drainage piping shall be connected to an individual sewage disposal system of adequate capacity, and of proper location, design, and construction, to prevent an insanitary or stream pollution condition. A plan showing the location and the design of the sewage treatment facilities, and the location of any wells within seventy-five feet of the site, shall be filed with the application for a plumbing permit. [See 14.3(1)T.III.]

Under the provisions of the stream and lake pollution law, section 135.26 [Repealed], Code of Iowa, a permit for the disposal of sewage or water-borne wastes is required to be obtained from the state department of health; except that no permit is required for any new disposal system, or extension or addition to an existing disposal system, that receives or may receive only domestic sewage from a building to be occupied by fifteen persons or less. Plans and specifications for such installations must be submitted to the state department of health before a permit will be issued, and construction of such an installation shall not be started until such a permit has been obtained.

2.23(135)T.III Location of fixtures.

2.23(1) Light and ventilation. Plumbing fixtures, except drinking fountains and single lavatories, shall be located in compartments or rooms provided with adequate ventilation and illumination.

2.23(2) Improper location. Piping, fixtures, or equipment shall not be located in such a manner as to interfere with the normal operation of windows, doors, or other exit openings.

2.24(135)T.III Piping measurements.

2.24(1) Method. Except where otherwise specified in this code, all measurements between pipes or between pipes and walls, etc., shall be made to the center lines of the pipes.

2.25(135)T.III Venting.

2.25(1) Trap seal protection. The drainage system shall be provided with a system of vent piping which will permit the admission or emission of air so that under no circumstances of normal or intended use shall the seal of any fixture trap be subjected to a pressure differential of more than one inch of water.

2.26(135)T.III Ventilation ducts.

2.26(1) Independent system. Ventilation ducts from washrooms and toilet rooms shall exhaust to the outer air or form a system independent of the plumbing vent system.

2.26(2) Gas water heaters. All gas water heaters shall have a vent pipe of approved

material installed so as to vent to the outside air; either through an established flue or independently through the roof. Rubber tubing shall not be used as gas supply lines.

2.27(135)T.III Water closet connections.

2.27(1) Lead. Three-inch lead bends and stubs may be used on water closets or similar connections, provided the inlet is dressed or expanded to receive a four-inch flange.

2.27(2) Reducing. Four- by three-inch reducing bends are permitted.

2.27(3) Copper. Three-inch copper bends may be used on water closets or similar connections provided a four- by three-inch flange is used to receive the fixture horn.

2.27(4) Cast iron. Wall-hung water closets with cast iron drainage connections may be used when approved by the local administrative authority.

2.28(135)T.III Dead ends.

2.28(1) Restricted. In the installation or removal of any part of a drainage system, dead ends shall be avoided except where necessary to extend a cleanout so as to be accessible.

2.29(135)T.III Toilet facilities for workmen.

2.29(1) Facilities required. Suitable toilet facilities shall be provided and maintained in a sanitary condition for the use of workmen during the construction of any building.

[Filed prior to July 1, 1952; amended December 28, 1955, March 18, 1964]

CHAPTER 3

MATERIALS—QUALITY AND WEIGHT

3.1(135)T.III Materials.

3.1(1) Minimum standards. The materials listed in this chapter shall conform at least to the current issues of the standards cited when used in the construction, installation, alteration, or repair of any part of a plumbing and drainage system, except that the administrative authority may allow the extension, addition, or relocation of existing soil, waste, or vent pipes with materials of like grade or quality, as permitted in 2.5(1)T.III.

Extra heavy weight cast iron soil and waste pipe may be either statically or centrifugally cast. Service weight cast iron soil and waste pipe shall be centrifugally or spun cast, or of equal quality.

3.1(2) Use of materials. Each material listed in table 3.5(135)T.III shall conform to the current issue of at least one of the standards cited opposite it. Its use shall be further governed by the requirements imposed in other chapters of this code. Materials not included in the table shall be used only as provided in 3.1(1)T.III. Materials shall be free of manufacturing defects or damage, however occasioned, which would, or would tend to, render

such materials defective, unsanitary, or otherwise improper to accomplish the purpose of this code.

3.1(3) Specifications for materials. Standard specifications for materials for plumbing installations are listed in table 3.5(135)T.III. Products conforming at least to any of the specifications listed for a given material shall be considered acceptable. *Note 1.* Abbreviations used in table 3.5(135)T.III refer to standards or specifications as identified below:

ASA American Standards approved by the American Standards Association, 70 East 45th St., New York 17, New York.

ASTM Standards and Tentative Standards published by the American Society for Testing Materials, 1916 Race St., Philadelphia 3, Pennsylvania.

FS Federal Specifications published by the Federal Specifications Board, and obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

AWWA Standards and Tentative Standards published by the American Water Works Association, 500 Fifth Avenue, New York 18, New York.

CS Commercial Standards representing recorded voluntary recommendations of the trade, issued by the United States department of commerce, and obtainable from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

MSS Standards published by the Manufacturers Standardization Society of the Valve and Fittings Industry, 420 Lexington Ave., New York 17, New York.

SPR Simplified Practice Recommendations representing recorded recommendations of the trade and issued by the United States department of commerce, Washington 25, D. C.

NSF Standards and approvals issued by the National Sanitation Foundation, Testing Laboratories, Inc., School of Public Health, University of Michigan, Ann Arbor, Michigan.

Note 2. ASTM standards are issued under fixed designations; the final number indicates the year of original adoption, or in the case of revision the year of the last revision. T indicates Tentative. In the CS series of standards, also, the final number indicates the year of issue. For Federal Specifications, the year indicated in table 3.5(135)T.III is that of the date of issue or that of the latest revision or amendment.

Note 3. All standards and specifications for materials are subject to change. Designations carrying indication of the year of issue may thus become obsolete. Table 3.5(135)T.III gives the full designations of standards current at the time this code is printed.

3.1(4) Identification of materials. Each length of pipe, and each pipe fitting, trap, fixture, and device used in a plumbing system shall have cast, stamped or indelibly marked on it the maker's mark or name, the weight,

type, and classes of the product, when such marking is required by the approved standard that applies. Septic tanks shall be marked with effective capacity and the gauge of metal.

Copper pipe and tubing used for water supply and distribution, and for drainage, waste, and vent installations, shall be marked in color code by the manufacturer in the form of a spiral or in the form of longitudinal stripes; which markings shall be clearly visible in the completed installation at the time of inspection.

3.2(135)T.III Special materials.

3.2(1) Lead. [See table 3.5(135)T.III.] Sheet lead shall not be less than the following:

For safe pans—not less than four pounds per square foot.

For flashings of vent terminals—not less than three pounds per square foot.

Lead bends and lead traps shall be not less than one-eighth inch wall thickness.

3.2(2) Copper. Sheet copper shall be not less than the following:

Safe pans—twelve ounces per square foot.

Vent terminal flashings—eight ounces per square foot.

3.2(3) Red brass ferrules. Calking ferrules shall be manufactured from red brass and shall be in accordance with the following:

Pipe sizes (inches)	Inside diameter (inches)	Length (inches)	Minimum Wt. each lb. oz.
2	2¼	4½	1 0
3	3¼	4½	1 12
4	4¼	4½	2 8

3.2(4) Red brass bushings. Soldering bushing shall be of red brass in accordance with the following:

Pipe sizes inches	Minimum weight each	
	lb.	oz.
1¼	0	6
1½	0	8
2	0	14
2½	1	6
3	2	0
4	3	8

3.2(5) Floor flanges. Floor and wall flanges for water closets or similar fixtures shall be not less than one-eighth inch thick for brass, one-fourth inch thick and not less than two-inch calking depth for cast iron or galvanized malleable iron. Flanges shall be soldered to lead bends, or shall be calked or screwed to other metal. Closet screws and bolts shall be of brass.

3.2(6) Cleanouts.

a. Cleanout plugs shall be of brass and shall conform to Federal Specifications WW-P-401.

b. Plugs may have raised square heads or counter sunk.

c. Counter-sunk heads should be used where raised heads may cause a hazard.

3.2(7) Chemically stable materials. Separate drainage and venting systems for chemical wastes shall be of corrosion resistant material approved by the administrative authority. Materials acceptable for such systems include prestressed low expansion borosilicate glass pipe, high silicon content wrought iron pipe, plastic pipe, lead pipe, or other material with equal properties and qualities suitable for the wastes to be conveyed.

3.3(135)T.III Alternate materials and methods.

3.3(1) Existing premises. In existing buildings or premises in which plumbing installations are to be altered, repaired, or renovated, the administrative authority has discretionary powers to permit deviation from the provisions of this code, provided that such a proposal to deviate is first submitted for proper determination in order that health and safety requirements, as they pertain to plumbing, shall be observed.

3.3(2) Approval. Provisions of this code are not intended to prevent the use of any material, device, method of assemblage or installation fixture, or appurtenance not specifically authorized, providing such alternate has been approved by the administrative authority, in accordance with this rule and the state department of health.

3.3(3) Evidence of compliance. The administrative authority shall require sufficient evidence to enable him to judge whether proposed alternates meet the requirements of this code for safety and health.

3.3(4) Tests. When there is insufficient evidence to substantiate claims for alternates, the administrative authority may require tests of compliance as proof to be made by an approved agency at the expense of the applicant.

3.3(5) Test procedure. Tests shall be made in accordance with generally recognized standards; but in the absence of such standards, the administrative authority shall specify the test procedure.

3.3(6) Repeated tests. The administrative authority may require tests to be repeated if, at any time, there is reason to believe that an alternate no longer conforms to the requirements on which its approval was based.

3.4(135)T.III Approved materials.

3.4(1) Periodic review.

Note. All standards and specifications for materials are subject to change. Designations carrying indication of the year of issue may thus become obsolete. Table 3.5(135)T.III gives the full designations of standards current at the time this code is printed.

3.4(2) Specific usage. Each chapter of this code indicates specifically the type of material permitted for the various parts of the plumbing system. The standards for each of those materials are given in table 3.5(135)T.III.

TABLE 3.5(135)T.III MATERIALS FOR PLUMBING INSTALLATIONS

Materials	See Subsections 3.1(2) and 3.4(2)			Other Standards Remarks
	ASA	ASTM	FS	
Nonmetallic Piping				
Clay Sewer Pipe			SS-P-361b(3)-1962 & Int. Amd. 4-1962	
Standard Strength	A106.3-58	C13-57	SS-P-361b(3)-1962 & Int. Amd. 4-1962	
Clay Pipe Unglazed			SS-P-361b(3)-1962 & Int. Amd. 4-1962	
Standard Strength	A106.4-61	C261-60T	SS-P-361b(3)-1962 & Int. Amd. 4-1962	
Clay Pipe			SS-P-361b(3)-1962 & Int. Amd. 4-1962	
Extra Strength			SS-P-361b(3)-1962 & Int. Amd. 4-1962	
Clay Pipe Unglazed			SS-P-361b(3)-1962 & Int. Amd. 4-1962	
Extra Strength			SS-P-359b-1960	
Clay Pipe Perforated	A106.1-62	C278-60T	SS-T-310-1942	
Clay Drain Tile		C211-61T	SS-P-00371b-1962	
Concrete Sewer Pipe		C4-62	SS-P-371a-1956	Nonreinforced
Concrete Sewer Pipe		C76-62T	SS-P-356-1965	Nonreinforced
Bituminized Fibre Pipe		C14-59	SS-P-371a-1956	CS116-54
and Fittings		D1861-61T	SS-P-356-1965	CS226-59
Asbestos Cement Sewer Pipe			SS-P-331b-1962	Nonpressure
Asbestos Cement Water Pipe			SS-P-351a-1953	Pressure
Plastic Water Pipe & Fittings			L-P-00545-1962	CS255-63 nSf
Flex. PE, series 2 & 3				
Plastic Water Pipe & Fittings				
Rigid ABS		D1527-58T		CS254-63 nSf
Plastic Water Pipe & Fittings				
Rigid PVC		D1785-60T		CS256-63 nSf
Plastic Sewer Pipe & Fittings				
ABS		D1527-58T		CS254-63
Plastic Sewer Pipe & Fittings				CS256-63
PVC				CS237-61
Plastic Sewer Pipe & Fittings				CS228-61
PVC				
Plastic Sewer Pipe & Fittings				
Styrene Rubber				
Ferrous Pipe and Fittings				
Cast Iron Soil Pipe & Fittings	A40.1-1935	A74-42	WW-P-00401b-1961	CS188-59 Amd.-I Service Weight
Cast Iron Water Pipe	A21.2-1953	A377-57	WW-P-421b(1)-1962	
Cast Iron (Threaded) Pipe	A40.5-1943		WW-P-356-1936	
Cast Iron (Screwed) Fittings	B16.4-1949		WW-P-501c(1)-1957	
Cast Iron Drainage Fittings	B16.12-1953		WW-P-491a(1)-1946	Section D6
Galvanized Pipe & Fittings		A93-59T	WW-P-406b-1961	Type I & II
Wrought Iron Pipe (Welded)	B36.2-1961	A72-62T	WW-P-441b(1)-1953	Type III only
Steel Pipe		A120-62T	WW-P-406b-1961	
Open Hearth Iron Pipe	B36.23-1959			
Malleable Iron Fittings, (Threaded) 150 lbs.	B16.3-1951	A338-61	WW-P-521d(1)-1960	
Steel Pipe Seamless & Welded, Black and Zinc Coated (Galvanized)		A120-62T	WW-P-404c(1)-1962	
Unions, Malleable Iron or Steel, 300 lb.			WW-U-536(1)-1933	CS7-29
Valves, Cast Iron, Gate, 125 & 250 lb.			WW-V-58(1)-1946	
Threaded and Flanged Pipe Fittings, Bronze and Ferrous (Bushings, Plugs & Lock Nuts), Threaded			WW-P-471a-1960	
Nipples, Pipe, Threaded			WW-N-351a(1)-1960	CS5-46
Nonferrous Pipe and Fittings				
Brass Tubing		B135-62T	WW-T-791(1)-1933	
Brass Pipe		B43-62	WW-P-351a-1963	
Brass or Bronze Flanged Fittings, 150 and 300 lb.	B16.24-1962			
Cast Brass Soldered Joint Fittings for Water Tube	B16.18-1950			
Cast Bronze Soldered Joint Drainage Fittings	B16.23-1960			
Brass or Bronze Screwed Fittings, 125 & 250 lb.	B16.15-1958		WW-P-460a-1961	
Copper Pipe	H26.1-1959	B42-62	WW-P-377d-1962	
Seamless Copper Tubing		B75-62	WW-T-797c-1963	
Copper Pipe Threadless		B302-62		
Copper Water Tube, Types K, L, M	H23.1-1959	B88-62	WW-T-799a(1)-1946	
Wrought Copper & Wrought Bronze Solder Joint Fittings	B16.22-1951			
Brass Fittings for Flared Copper Tubes	B16.26-1958			
Lead Pipe and Trans			WW-P-325-1944	CS95-41 & CS96-41
Copper Drainage Tube, Type DWV		B306-62	WW-U-516-1933	CS229-60
Unions, Brass or Bronze, 250 lb.				
Valves, Bronze, Angle, Check & Globe, 125 & 150 lb., Threaded and Flanged			WW-V-51a(2)-1954	
Miscellaneous				
Caulking Lead Type I			QQ-L-156(1)-1946	CS94-41
Sheet Lead			QQ-L-201d(1)-1961	
Sheet Brass			QQ-B-618b-1961	
Sheet Copper		B36-61 & B121-60	QQ-C-576b-1961	
Galvanized Iron & Steel Sheets	G3.8-1937	B152-60	QQ-S-775a-1960	
Cement Lining	A21.4-1953	A163-60T	WW-P-406b-1961	AWWA-C203-62
Coal Tar Enamel (Protective Coating)				
Soft Solder		B32-60aT		
Fixture Setting Compound			HH-C-536a-1954	

Air Gap Standards	A40.4-1942			
Backflow Preventers	A40.6-1943			
Bronze Gate				
Cast Iron Gate				
Hangers & Supports - Pipe				WW-V-54b-1962
Resilient Joints		C425-60T		WW-V-58(1)-1946
Steel Septic Tanks				WW-H-171b-1959
Domestic Hot Water Heaters	Z21.10.1-1962			WH-196d-1961
Plumbing Fixtures, Land Use				WW-P-541b(4)-1962 & Int. Amd.5-1962

CS177-62

[Filed prior to July 1, 1952; amended December 28, 1955; March 18, 1964]

CHAPTER 4

JOINTS AND CONNECTIONS

4.1(135)T.III Tightness.

4.1(1) *Test conformance.* Joints and connections in the plumbing system shall be gas-tight and watertight for the pressures required by test, with the exception of those portions of perforated or open-joint piping which are installed for the purpose of collecting and conveying ground or seepage water to the underground storm drains.

4.2(135)T.III Types of joints.

4.2(1) *Calked joints.* Calked joints for cast iron bell- and spigot-soil pipe shall be firmly packed with oakum or hemp and filled with molten lead not less than one inch deep and not to extend more than one-eighth inch below rim of hub. No paint, varnish, or other coatings shall be permitted on the jointing material until after the joint has been tested and approved.

4.2(2) *Threaded joints—screwed joints.* Threads shall conform to American National Taper Pipe thread, ASA B2.1-1960, or FS GGG-P-351a, or current issue thereof. All burrs shall be removed. Pipe ends shall be reamed or filed out to size of bore, and all chips shall be removed. Appropriate pipe jointing compounds shall be used only on male threads.

4.2(3) *Wiped joints.* Joints in lead pipe or fittings, or between lead pipe or fittings and brass or copper pipe, ferrules, solder nipples, or traps, shall be full-wiped joints. Wiped joints shall have an exposed surface on each side of a joint not less than three-fourths inch and at least as thick as the material being jointed. Wall or floor flange lead-wiped joints shall be made by using a lead ring or flange placed behind the joint at wall or floor.

Joints between lead pipe and cast iron, steel, or wrought iron shall be made by means of a calking ferrule, soldering nipple, or bushing.

4.2(4) *Soldered or sweat joints.* Soldered or sweat joints for tubing shall be made with approved fittings. Surfaces to be soldered or sweated shall be cleaned bright. The joints shall be properly fluxed and made with approved solder.

Joints in copper water tubing shall be made by the appropriate use of approved brass or copper water fittings, properly soldered or sweated together.

4.2(5) *Flared joints.* Flared joints for soft-copper water tubing shall be made with fittings meeting approved standards. The tub-

ing shall be expanded with a proper flaring tool.

4.2(6) *Hot-poured joints.* Hot-poured compound for clay or concrete sewer pipe shall not be water absorbent and when poured against a dry surface shall have a bond of not less than one hundred pounds per square inch. All surfaces of the joint shall be cleaned and dried before pouring. If wet surfaces are unavoidable, a suitable primer shall be applied. Compound shall not soften sufficiently to destroy the effectiveness of the joint when subjected to a temperature of 160° F. nor be soluble in any of the waste carried by the drainage system. Approximately twenty-five percent of the joint space at the base of the socket shall be filled with jute or hemp. A pouring collar, rope, or other device shall be used to hold the hot compound during pouring. Each joint shall be poured in one operation until the joint is filled. Joints shall not be tested until one hour after pouring.

4.2(7) *Precast joints.* Precast joints for clay sewer pipe shall be made of a material that is inert, and resistant to both acids and alkalies. Such joints shall be formed both on the spigot and in the bell of the pipe at the time of pipe manufacture.

Precast compression joints having resilient properties [See table 3.5(135)T.III] may be used for building sewers of clay tile, except when the temperature of the waste will exceed 212° F. Immediately prior to making joint contact, the surfaces shall be wiped free of foreign matter, and coated with an appropriate lubricant compound; followed by positioning the top or one side of the spigot into the previously laid bell, easing the pipe into alignment with steady pressure, and drawing or pushing the pipe until the spigot is seated against the shoulder of the hub.

Precast joints of bituminous or similar compounds may be used for building sewers of clay tile, provided that the joint material is not soluble in any of the wastes carried by the drainage system and that the temperature of the wastes does not exceed 160° F. Collar surfaces of such joints shall be conical, with side slopes of 3° with the axis of pipe, and the length shall be equal to the depth of the socket. Prior to making joint contact, the surfaces shall be cleaned and coated with appropriate solvents and adhesives. When the spigot end is inserted in the collar, it shall bind before contacting the base of the socket.

4.2(8) *Brazed joints — soldered joints.* Brazed or soldered joints shall be made with approved fittings. Surfaces to be brazed or

soldered shall be cleaned bright. The joints shall be properly fluxed and made with approved solder. Brazed joints shall be made in accordance with section 6, Code for Pressure Piping, ASA B31.1-1955, or current issue thereof.

4.2(9) Cement mortar joints. Cement joints shall be used only when specifically permitted in other chapters of this code or when approved by the administrative authority, as sufficient to accomplish the purpose of this code. A layer of jute or hemp shall be inserted into the base of the joint space and rammed to prevent mortar from entering the interior of the pipe. Jute or hemp shall be dipped into a slurry suspension of portland cement in water prior to insertion into bell. Not more than twenty-five percent of the joint space shall be used for jute or hemp. The remaining space shall be filled in one continuous operation with a thoroughly mixed mortar composed of one part cement and two parts sand, with only sufficient water to make the mixture workable by hand. After one-half hour of setting, the joint shall be rammed around entire periphery with a blunt tool to force the partially stiffened mortar into the joint and to repair any cracks formed during the initial setting period. Pipe interior shall be swabbed to remove any material that might have fallen into the interior. Additional mortar of the same composition shall then be troweled so as to form 45° taper with barrel of the pipe.

4.2(10) Burned lead joints. Burned (welded) lead joints shall be lapped and the lead shall be fused together to form a uniform weld at least as thick as the lead being joined.

4.2(11) Asbestos cement sewer pipe joints. Joints in asbestos cement pipe shall be made with sleeve couplings of the same composition as the pipe, sealed with rubber rings. Joints between asbestos cement pipe and metal pipe shall be made by means of an adapter coupling calked as required in 4.2(1)T.III.

4.2(12) Bituminized fibre pipe joints. Joints in bituminized fibre pipe shall be made with tapered type couplings of the same material as the pipe. Joints between bituminized fiber pipe and metal pipe shall be made by means of an adapter coupling calked as required in 4.2(1)T.III.

4.2(13) Flexible plastic pipe joints. Joints in flexible plastic pipe shall be made by the appropriate use of insert and clamp type fittings which bear the National Sanitation Foundation seal of approval. All clamps shall be broad flat bands of corrosion resistant material, with all parts of the same material. The pipe to be joined shall be squarely cut, free of burrs, and the ends wiped clean. Hot water may be used as the lubricant for the fittings; but under no circumstances shall pipe dope, gasket cement, detergent, or petroleum lubricants be used. Each clamp shall be positioned over the smooth section ahead of the serrations of a fitting, and securely tightened.

4.2(14) Rigid plastic pipe joints. Joints in rigid plastic pipe shall be made only with solvent welded, or threaded type, fittings; provided that threaded joints may be used only with Schedules 80 and 120 I.P.S. pipe and fittings. Fittings for solvent welded joints shall be of the same material as the pipe to be joined. The solvent cement used shall be specifically designated for the pipe material and, for potable water lines, also shall bear the approval of the National Sanitation Foundation Testing Laboratory. The pipe to be joined shall be squarely cut, free of burrs, and the ends wiped dry and clean. The solvent cement shall be applied uniformly to the bell of the fitting, and to the spigot of the pipe to a distance equal to the fitting depth. The pipe shall be inserted firmly to assure seating of the spigot against the shoulder of the fitting and, if possible, rotated slightly to assure even distribution of the cement. All excess cement shall be wiped from the exterior of the finished joint.

Threaded joints in rigid plastic pipe shall be made as provided in 4.2(2)T.III.

4.2(15) Preformed gaskets. Joints in cast iron sewer pipe may be made with positive seal moulded elastomeric compression type gaskets, when specifically permitted in other rules of this code, provided the pipe is centrifugally (spun) cast, and of suitable design to provide watertight joints. Each such gasket shall bear the trade name, the pipe size and class, the date made, and the producers trade-mark. In making such joints, the gasket shall be inserted in the pipe hub, the inner surface of the gasket coated with a suitable rubber gasket lubricant, a spigot end inserted into the gasket, and the pipe drawn or pushed by an applicable device or method until the spigot is seated against the shoulder of the hub.

4.3(135)T.III Type of pipes.

4.3(1) Clay sewer pipe. Joints in vitrified clay pipe or between such pipe and metal pipe shall be made as provided in 4.2(6, 7)T.III, or otherwise approved under 3.3(2)T.III.

4.3(2) Concrete sewer pipe. Joints in concrete sewer pipe or between such pipe and metal pipe shall be made as provided in 4.2(6, 7)T.III, or otherwise approved under 3.3(2)T.III.

4.3(3) Cast iron pipe. Joints in cast iron pipe shall be calked as provided in 4.2(1)T.III or, when specifically permitted in other rules of this code, as provided in 4.2(15)T.III.

4.3(4) Screw pipe to cast iron. Joints between wrought iron, steel, brass, or copper pipe, and cast iron pipe shall be either calked or threaded joints made as provided in 4.2(1, 2)T.III, or shall be made with approved adapter fittings.

4.3(5) Lead to cast iron, wrought iron, or steel. Joints between lead and cast iron, wrought iron, or steel pipe shall be made by means of wiped joints to a calking ferrule

soldering nipple, or bushing as provided in 4.2(3)T.III.

4.3(6) Copper water tube. Joints in copper tubing shall be made either by the appropriate brass or copper water fittings, properly sweated, or soldered together, or by means of approved compression fittings as provided by 4.2(4, 5).

4.3(7) Flexible plastic pipe to metal water pipe. Joints between flexible plastic pipe and metal water pipe shall be made by means of insertable adapter fittings; with the plastic pipe attached as provided in 4.2(13)T.III, and with the metal pipe attached as provided in 4.2(2)T.III. Joint compound bearing the approval of the National Sanitation Foundation Testing Laboratory shall be used on the male threads on the metal side only, and no joint compound shall be used on the plastic pipe side.

4.3(8) Rigid plastic pipe to metal water pipe. Joints between rigid plastic pipe and metal water pipe shall be made by means of suitable adapter fittings; with the plastic pipe attached as provided in 4.2(14)T.III, and with the metal pipe attached as provided in 4.2(2)T.III.

4.3(9) Rigid plastic pipe to cast iron. Joints between rigid plastic pipe and cast iron pipe shall be made by means of suitable adapter fittings; with the plastic pipe attached as provided in 4.2(14)T.III, and with the cast iron pipe attached as provided in 4.2(1)T.III.

4.4(135)T.III Methods of union.

4.4(1) Copper tubing to screwed pipe joints. Joints from copper tubing to threaded pipe shall be made by the use of brass or copper converter fittings. The joint between the copper tubing and the fitting shall be properly sweated or soldered, and the connection between the threaded pipe and the fittings shall be made with a standard pipe size or screw joint.

4.4(2) Brazing or welding. Brazing or welding shall be performed in accordance with requirements of recognized published standards of practice, ASA B31.1-1955, or current issue thereof, and by qualified mechanics; except when the method proposed is determined by the administrative authority to be equivalent procedure for the purpose of this code.

4.4(3) Slip joints. In drainage and water piping, slip joints may be used only on the inlet side of the trap or in the trap seal, and on the exposed fixture supply.

4.4(4) Ground joint brass connections. Ground joint brass connections which allow adjustment of tubing but provide a rigid joint when made up shall not be considered as slip joints.

4.5(135)T.III Unions (screwed).

4.5(1) Drainage system. Unions may be used in the trap seal and on the inlet side of the trap. Unions shall have metal-to-metal seats.

4.5(2) Water-supply systems. Unions in the water-supply system shall be metal-to-metal with ground seats.

4.6(135)T.III Water closet, pedestal urinal, and trap standard service.

4.6(1) Floor outlet fixture connections. Fixture connections between drainage pipes and water closets, floor-outlet service sinks, pedestal urinals, and earthenware trap standards, shall be made by means of brass, or iron flanges, calked, soldered or screwed to the drainage pipe. The connection shall be bolted, with an approved gasket, or washer, or setting compound between the earthenware and the connection. The floor flange shall be set on an approved firm base. The use of commercial putty or plaster is prohibited.

4.7(135)T.III Prohibited joints and connections.

4.7(1) Drainage system. Any fitting or connection which has an enlargement, chamber, or recess with a ledge, shoulder, or reduction of pipe area, that offers an obstruction to flow through the drain, is prohibited.

4.7(2) Exception. No fitting or connection that offers abnormal obstruction to flow shall be used. The enlargement of a three-inch closet bend or stub to four inches shall not be considered an obstruction.

4.7(3) Lead bend or ferrule. No branch connection shall be made to a lead bend or ferrule.

4.8(135)T.III Waterproofing of openings.

4.8(1) Approved material. Joints at the roof, around vent pipes, shall be made watertight by the use of lead, copper, or other approved flashings or flashings material. Exterior-wall openings shall be made watertight.

4.9(135)T.III Increases and reducers.

4.9(1) Proper size. Where different sizes of pipes, or pipes and fittings are to be connected, the proper size increasers or reducers or reducing fittings shall be used between the two sizes.

[Filed prior to July 1, 1952; amended December 28, 1955, March 18, 1964]

CHAPTER 5

TRAPS AND CLEANOUTS

5.1(135)T.III Traps.

5.1(1) Fixture traps. Plumbing fixtures, excepting those having integral traps, shall be separately trapped by a water-seal trap, placed as close to the fixture outlet as possible, except that a set of not more than three laundry trays or lavatories or a set of two laundry trays and one sink, cast or made as one fixture, may connect with a single trap, provided that no horizontal arm shall exceed three feet in developed length from the fixture trap.

5.2(135)T.III Type and size of traps and fixture drains.

5.2(1) *Trap size.* The size (nominal diameter) of trap for a given fixture shall be sufficient to drain the fixture rapidly but in no case less than given in table 11.4(2)T.III.

5.2(2) *Relation to fixture drains.* No trap shall be larger than the drain to which it is connected.

5.2(3) Type of traps.

a. Fixture traps shall be self-cleaning other than integral traps without partitions or movable parts.

b. Slip joints or couplings may be used on the trap inlet or within the trap seal of the trap if metal-to-metal ground joint is used.

c. A trap integral with the fixture shall have a uniform interior and smooth waterway.

5.3(135)T.III General requirements.

5.3(1) *Trap seal.* Each fixture trap shall have a water seal of not less than two inches and not more than four inches, except where a deeper seal is found necessary by the administrative authority for special conditions.

5.3(2) *Trap cleanouts.* Each fixture trap, except those cast integral or in combination with fixtures in which the trap seal is readily accessible or except when a portion of the trap is readily removable for cleaning purposes, shall have an accessible brass trap screw of ample size protected by this water seal.

5.3(3) *Trap level and protection.* Traps shall be set true with respect to their water seals, and where necessary, they shall be protected from freezing.

5.3(4) Reserved for future use.

5.3(5) Reserved for future use.

5.3(6) Prohibited traps.

a. No trap which depends for its seal upon the action of movable parts shall be used.

b. S traps are prohibited.

c. Bell traps are prohibited.

d. Crown-vented traps are prohibited.

e. Building or house traps on the main house sewer or house drain are prohibited.

5.3(7) *Double trapping.* No fixture shall be double trapped.

5.4(135)T.III Pipe cleanouts.

5.4(1) *Location.* Cleanouts shall not be more than fifty feet apart in horizontal drainage lines of four-inch nominal diameter or less and not more than one hundred feet apart for larger pipes.

5.4(2) *Underground drainage.* Cleanouts, when installed on an underground drain, shall be extended to or above the finished grade level directly above the place where the cleanout is installed; or may be extended to the outside of the building when found necessary by the administrative authority.

5.4(3) Reserved for future use.

5.4(4) *Concealed piping.* Cleanouts on concealed piping shall be extended through and

terminate flush with the finished wall or floor; chases may be left in the wall or floor, provided they are of sufficient size to permit removal of the cleanout plug and effective cleaning of the system.

5.4(5) *Base of stacks.* A cleanout shall be provided in each vertical waste or soil stack at a point at least forty-two inches above the floor. For buildings with a floor slab on the ground surface, the following will be acceptable in lieu of a cleanout at the base of the stack: The building drain may be extended to the outside of the building and terminated in an accessible cleanout; or an accessible cleanout installed in the building drain downstream from the stack, not more than five feet outside the building wall.

5.4(6) *Building drain junction.* There shall be a cleanout near the junction of the building drain and building sewer or a cleanout with Y branch inside the building wall unless the cleanout at the base of the stack is within five feet of the point where the sewer enters the building and in such case the stack cleanout will be sufficient.

5.4(7) *Direction of flow.* Every cleanout shall be installed so that the cleanout opens in a direction opposite to the flow of the drainage line or at right angle thereto.

5.4(8) *Prohibited connection.* Cleanout plugs shall not be used for the installation of new fixtures or floor drains except where approved in writing by the administrative authority.

5.5(135)T.III Size of cleanouts.

5.5(1) *Small pipes.* Cleanouts shall be of the same nominal size as the pipes up to four inches and not less than four inches for larger piping.

5.6(135)T.III Cleanout clearances.

5.6(1) *Large pipes.* Cleanouts on three-inch or larger pipe shall be so installed that there is a clearance of not less than eighteen inches for the purpose of rodding.

5.6(2) *Small pipes.* Cleanouts smaller than three inches shall be so installed that there is a twelve-inch clearance for rodding.

5.6(3) *Calking.* Cement, plaster, or any other permanent finishing material shall not be placed over a cleanout plug.

5.6(4) *Concealment.* Where it is necessary to conceal a cleanout plug, a covering plate or access door shall be provided which will permit ready access to the plug.

5.7(135)T.III Cleanout equivalent.

5.7(1) *Alternate.* A fixture trap or a fixture with integral trap, readily removable without disturbing concealed roughing work, may be accepted as a cleanout equivalent.

[Filed prior to July 1, 1952; amended December 28, 1955, March 18, 1964]

CHAPTER 6

INTERCEPTORS—SEPARATORS AND
BACKWATER VALVES**6.1(135)T.III Interceptors and separators.**

6.1(1) When required. Interceptors (including grease, oil, and sand interceptors, etc.) shall be provided when, in the judgment of the administrative authority having jurisdiction, they are necessary for the proper handling of liquid wastes containing flammable wastes, sand, and other ingredients harmful to the building drainage system, the public sewer or sewage-treatment plant or processes.

6.1(2) Approval. The size, type, and location of each interceptor or separator shall be approved by the administrative authority in accordance with generally accepted standards and no wastes other than those requiring treatment or separation shall be discharged into any interceptor.

6.2(135)T.III Grease interceptors.

6.2(1) Commercial buildings. A grease interceptor shall be installed in the waste line leading from sinks, drains, or other fixtures in the following establishments when, in the judgment of the administrative authority, a hazard exists: Restaurants, hotel kitchens or bars; factory cafeterias or restaurants; clubs; or other establishments where grease can be introduced into the drainage system in quantities that can affect line stoppage or hinder sewage disposal.

6.2(2) Residential units. A grease interceptor is not necessary for individual dwelling units or any private living quarters.

6.3(135)T.III Oil separators.

6.3(1) Where required. An oil separator shall be installed in the drainage system or section of the system where, in the judgment of the administrative authorities, a hazard exists or where oils or other inflammables can be introduced or admitted into the drainage system in appreciable quantities by accident or otherwise.

6.4(135)T.III Sand interceptors.

6.4(1) Commercial installations. Sand and similar interceptors for heavy solids shall be so designed and located as to be readily accessible for cleaning, and shall have a water seal of not less than six inches.

6.5(135)T.III Venting interceptors.

6.5(1) Relief vent. Interceptors shall be so designed that they will not become air bound if closed covers are used.

6.6(135)T.III Accessibility of interceptor.

6.6(1) Easy access required. Each interceptor shall be so installed as to provide ready accessibility to the cover and means for servicing and maintaining the interceptor in working and operating condition. The use of lad-

ders or the removal of bulky equipment in order to service interceptors shall constitute a violation of accessibility.

6.7(135)T.III Interceptor's efficiency.

6.7(1) Flow rate. Interceptors shall be rated and approved for their efficiency as determined by the administrative authority and in accordance with generally accepted practice.

6.7(2) Water connection. Water connection for cooling or operating an interceptor shall be such that backflow cannot occur, and be protected by an approved air gap.

6.8(135)T.III Laundries.

6.8(1) Interceptors. Commercial laundries shall be equipped with an interceptor having a removable wire basket or similar device that will prevent strings, rags, buttons, or other material detrimental to the public sewerage system from passing into the drainage system.

6.9(135)T.III Bottling establishments.

6.9(1) Bottling plants. Bottling plants shall discharge their process wastes into an interceptor which will provide for the separation of broken glass or other solids, before discharging liquid wastes into the drainage system.

6.10(135)T.III Slaughterhouses.

6.10(1) Separators. Slaughtering-room drains shall be equipped with separators which shall prevent the discharge into the drainage system of feathers, entrails, and other materials likely to clog the drainage system.

6.10(2) Food grinder. Wastes may discharge directly to the building drainage system.

6.11(135)T.III Commercial grinders.

6.11(1) Discharge. Where commercial food-waste grinders are installed, the waste from those units may discharge direct into the building drainage system and not through a grease interceptor.

6.11(2) Approval. The administrative authority shall determine where and what type of interceptor is necessary, except that interceptors shall not be required for private living quarters or residential units.

6.12(135)T.III Maintenance.

6.12(1) Cleaning. Interceptors shall be maintained in efficient operating condition by periodic removal of accumulated grease.

6.13(135)T.III Oil interceptors.

6.13(1) Where required. Oil separators shall be installed when required by the administrative authority and shall conform to the requirements of 6.13(2)T.III.

6.13(2) Minimum dimension. Interceptors for service stations and garages where

both oil wastes and sand or mud may be expected, shall have a minimum capacity of twenty-five cubic feet.

6.13(3) *Special type separators.* Before installing any special type separator, a drawing including all pertinent information shall be submitted for approval of the administrative authority, as being in accordance with this code.

6.14(135)T.III Backwater valves.

6.14(1) Reserved for future use.

6.14(2) Reserved for future use.

6.14(3) *Material.* All bearing parts of backwater valves shall be of corrosion-resistant material.

6.14(4) *Positive seal.* Backwater valves shall be so constructed as to insure a mechanical seal against backflow.

6.14(5) *Diameter.* Backwater valves, when fully opened, shall have a capacity not less than that of the pipes in which they are installed.

6.14(6) *Location.* Backwater valves shall be so installed as to provide ready accessibility to their working parts.

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CHAPTER 7

PLUMBING FIXTURES

7.1(135)T.III General requirements — materials.

7.1(1) *Quality of fixtures.* Plumbing fixtures shall be structurally sound, of durable materials, have smooth impervious surfaces, and be free from defects and concealed fouling surfaces.

7.2(135)T.III Alternate materials.

7.2(1) *Materials.* Sinks and special-use fixtures may be made of soapstone, chemical stoneware, or may be lined with lead, copper-base alloy, nickel-copper alloy, corrosion-resisting steel, or other materials especially suited to the use for which the fixture is intended.

7.3(135)T.III Overflows.

7.3(1) *Design.* When any fixture is provided with an overflow, the waste shall be so arranged that the standing water in the fixture cannot rise in the overflow when the stopper is closed or remain in the overflow when the fixture is empty.

7.3(2) *Connection.* The overflow pipe from a fixture shall be connected on the house or inlet side of the fixture trap.

7.4(135)T.III Installation.

7.4(1) *Cleaning.* Plumbing fixtures shall be installed in a manner to afford easy access for cleaning. Where practical, all pipes from fixtures shall be run to the nearest wall.

7.4(2) *Hangers.* Wall-hung fixtures shall be secured or attached with proper hangers.

7.4(3) *Securing fixtures.* Floor-outlet fixtures shall be rigidly secured to floor by screws or bolts.

7.4(4) *Wall-hung bowls.* Wall-hung water-closet bowls shall be rigidly supported by a concealed metal supporting member so that no strain is transmitted to the closet connection.

7.4(5) *Setting.* Fixtures shall be set level and in proper alignment with reference to adjacent walls. [See 4.6(1)T.III.]

7.5(135)T.III Water-supply protection.

7.5(1) *Supply fittings.* The supply lines or fittings for every plumbing fixture shall be so installed as to prevent backflow. [See 10.4(3)T.III.]

7.6(135)T.III Prohibited fixtures and connections.

7.6(1) *Fixtures.* Pan, valve, plunger, offset, washout, latrine, range, frost-proof, and other water closets having an invisible seal or an unventilated space or having walls which are not thoroughly washed at each discharge, are prohibited. Any water closet which might permit siphonage of the contents of the bowl back into the tank is prohibited.

7.6(2) *Connections.* Fixtures having concealed slip-joint connections shall be provided with an access panel or utility space so arranged as to make the slip connections accessible for inspection and repair.

7.7(135)T.III Water closets.

7.7(1) *Public use.* Water-closet bowls for public use shall be of the elongated type.

7.7(2) *Flushing device.* Water-closet tanks shall have a flushing capacity sufficient to properly flush the water-closet bowls with which they are connected.

7.7(3) *Float valves.* Float valves in low-down tanks shall close tight and provide water to properly refill the trap seal in the bowl.

7.7(4) *Close-coupled tanks.* The flush-valve seat in close-coupled water-closet combinations shall be one inch or more above the rim of the bowl, so that the flush-valve will close even if the closet trapway is clogged, or any closets with flush-valve seats below the rim of the bowl shall be so constructed that in case of trap stoppage, water will not flow continuously over the rim of the bowl.

7.7(5) *Automatic flush valve.* Flushometers shall be so installed that they will be readily accessible for repairing. When the valve is operated, it shall complete the cycle of operation automatically, opening fully and closing positively under the service pressure. At each operation the valve shall deliver water in sufficient volume and at a rate that will thoroughly flush the fixture and refill the fixture trap. Means shall be provided for regulating flush valve flow. Not more than one fixture shall be served by a single flush valve.

Protection against backflow shall be provided as specified in 10.4(3)T.III.

7.7(6) Seats. Water closets shall be equipped with seats of smooth nonabsorbent material. All seats of water closets provided for public use shall be of the open-front type. Integral water-closet seats shall be of the same material as the fixture.

7.8(135)T.III Urinals.

7.8(1) Automatic flushing tank. Tanks flushing more than one urinal shall be automatic in operation and of sufficient capacity to provide the necessary volume to flush and properly cleanse all urinals simultaneously.

7.8(2) Urinals equipped with automatic flush valves. Flushometers shall be as prescribed in 7.7(5)T.III and no valve shall be used to flush more than one urinal.

7.8(3) Trough urinals. Trough urinals shall be permitted only in places of temporary occupancy. They shall be not less than six inches deep and shall be furnished with one-piece backs and have strainers with outlets at least one and one-half inches in diameter. The washdown pipe shall be perforated so as to flush with an even curtain of water against the back of the urinal. This pipe shall be securely clamped as high as practicable to the back of the urinal. Trough urinals shall have tanks with a flushing capacity of not less than one and one-half gallons of water for each two feet of urinal length.

7.8(4) Reserved for future use.

7.8(5) Floor-type urinals. Floor-type trough urinals are prohibited.

7.8(6) Surrounding materials. Wall and floor space to a point one foot in front of urinal lip and four feet above the floor, and at least one foot to each side of the urinal shall be lined with nonabsorbent material.

7.9(135)T.III Strainer and fixture outlets.

7.9(1) Design. All plumbing fixtures, other than water closets and siphon-action washdown or blowout urinals, shall be provided with metal strainers having waterway area in accord with acceptable design.

7.10(135)T.III Lavatories.

7.10(1) Waste outlets. Lavatories shall have waste outlets not less than one and one-fourth inches in diameter. Wastes may have open strainers or may be provided with stoppers.

7.11(135)T.III Shower receptors and compartments.

7.11(1) Shower. All shower compartments, except those built directly on the ground, shall have a lead or copper shower pan or the equivalent thereof or as determined by the administrative authority. The pan shall turn up on all sides at least two inches above finished floor level. Traps shall be so constructed that the pan may be securely fastened to the trap at the seepage entrance making a watertight joint between the pan and

trap. Shower receptacle waste outlets shall be not less than one and one-half inches in diameter and have removable strainers.

7.11(2) On the ground. Shower receptors built on the ground shall be constructed of dense nonabsorbent and noncorrosive materials and shall have smooth impervious surfaces, or be as provided in 7.11(1)T.III.

7.11(3) Dimensions. Shower compartments shall have not less than nine hundred square inches in floor area and, if rectangular, square, or triangular, shall be not less than thirty inches in the shortest dimension.

7.11(4) Construction. Floors under shower compartments shall be laid on a smooth and structurally sound base, and shall be lined and made watertight with sheet lead, copper, or other acceptable material. Shower compartments located in basements, cellars, or in other rooms in which the floor has been laid directly on the ground surface, need not be lined.

7.11(5) Public or institution showers. Floors of public shower rooms shall be drained in such a manner that no waste water from any shower head will pass over areas occupied by other bathers.

7.11(6) Walls. Shower compartments shall have walls constructed of smooth, noncorrosive and nonabsorbent waterproof materials to a height of not less than six feet above the floor.

7.11(7) Joints. Built-in tubs with overhead showers shall have waterproof joints between the tub and walls, and the walls shall be waterproof.

7.12(135)T.III Sinks.

7.12(1) Waste outlets. Sinks shall be provided with waste outlets not less than one and one-half inches in diameter. Waste outlets may have open strainers or may be provided with stoppers.

7.13(135)T.III Food-waste-grinder units.

7.13(1) Separate connections. Domestic food-waste-disposal units shall be connected and trapped separately from any other fixture or compartment. Units may have either automatic or hand-operated water supply control. [See 10.4(135)T.III.]

7.13(2) Grease interceptors. No food-waste grinder shall be connected through a grease interceptor.

7.13(3) Commercial-type grinders. Commercial-type food-grinders shall be provided with not less than a two-inch waste line. Each waste line shall be trapped and vented as provided in other rules of this code.

7.14(135)T.III Drinking fountains.

7.14(1) Design and construction. Drinking fountains shall conform to American Standard Specifications for Drinking Fountains, ASA Z4.2-1942, or current issue thereof.

7.14(2) Protection of water supply. Stream projectors shall be so assembled as to

provide an orifice elevation as specified by American Standard Air Gaps in Plumbing Systems, ASA A40.4-1942, or current issue thereof, and American Standard Backflow Preventers in Plumbing Systems, ASA A40.6-1943, or current issue thereof.

7.15(135)T.III Floor drains.

7.15(1) *Trap and strainers.* Floor drains shall have metal traps and a minimum water seal of three inches and shall be provided with removable strainers. The open area of strainer shall be at least two-thirds of the cross-section area of the drain line to which it connects.

7.15(2) *Size.* Floor drains shall be of a size to serve efficiently the purpose for which it is intended.

7.16(135)T.III Dishwashing machines.

7.16(1) *Protection.* Domestic dishwashing machines shall meet requirements in 10.4(3)T.III.

7.16(2) *Separate trap.* Each unit shall be separately trapped or discharged indirectly into a properly trapped and vented fixture.

7.16(3) *Air gap.* Commercial dishwashing machines shall be connected through an air gap or as provided in chapter 9,T.III, Indirect Waste Piping and Special Wastes.

7.16(4) *Hot water.* Dishwashing machines or similar dishwashing equipment not in private living quarters or dwelling units shall be provided with water at least 180° F. for disinfection.

7.17(135)T.III Multiple wash sinks.

7.17(1) *Circular type.* Each eighteen inches of wash sink circumference (circular type) shall be equivalent to one lavatory.

7.17(2) *Straight-line type.* Multiple wash sinks of the straight-line type shall have hot and cold combination spouts not closer than eighteen inches from adjacent similar spouts and each spout shall be considered the equivalent of one lavatory.

7.18(135)T.III Garbage can washers.

7.18(1) *Discharge.* Garbage can washers shall not discharge through a trap serving any other device or fixture.

7.18(2) Reserved for future use.

7.18(3) *Baskets.* The receptacle receiving the wash from garbage cans shall be provided with a basket or similar device to prevent the discharge of large particles and utensils into the building drainage system.

7.18(4) *Connections.* Water supply connections shall conform to 10.4(3)T.III.

7.19(135)T.III Laundry trays.

7.19(1) *Waste outlets.* Each compartment of a laundry tray shall be provided with a waste outlet not less than one and one-half inches in diameter and with a stopper.

7.20(135)T.III Special fixtures and specialties.

7.20(1) *Water and drain connections.* Baptistries, ornamental and lily pools, aquaria, ornamental fountain basins, and similar constructions when provided with water supplies shall be protected from back-siphonage as required in 10.4(3)T.III.

[Filed prior to July 1, 1952; amended December 28, 1955, March 18, 1964]

CHAPTER 8

HANGERS AND SUPPORTS

8.1(135)T.III Strains and stresses.

8.1(1) *General.* Piping in a plumbing system shall be installed without undue strains and stresses, and provision shall be made for expansion, contraction, and structural settlement.

8.2(135)T.III Vertical piping.

8.2(1) *Attachment.* Vertical piping shall be secured at sufficiently close intervals to keep the pipe in alinement and carry the weight of the pipe and contents.

8.3(135)T.III Horizontal piping.

8.3(1) *Supports.* Horizontal piping shall be supported at sufficiently close intervals to keep it in alinement and prevent sagging.

8.3(2) *Cast-iron soil pipe.* Cast-iron soil pipe shall be supported at not more than eight-foot intervals.

8.3(3) *Screwed pipe.* Screwed pipe (SPS) shall be supported at approximately twelve-foot intervals.

8.3(4) *Copper tubing.* Copper tubing shall be supported at approximately six-foot intervals for piping one and one-half inches and smaller and ten-foot intervals for piping two inches and larger.

8.3(5) *Lead pipe.* Lead pipe shall be supported for its entire length.

8.3(6) *In ground.* Piping in the ground shall be laid on a firm bed for its entire length.

8.4(135)T.III Hangers and anchors.

8.4(1) *Material.* Hangers and anchors shall be of metal of sufficient strength to maintain in their proportional share of the pipe alinements.

8.4(2) *Attachment.* Hangers and anchors shall be securely attached to the building construction.

8.5(135)T.III Strains and stresses.

8.5(1) *Installation of pipe.* Piping in a plumbing system shall be so installed as to prevent undue strains and stresses.

8.5(2) *Expansion and contraction.* Provisions shall be made for expansion and contraction of piping and for structural settlement that may affect the piping.

8.5(3) Piping in concrete. Piping in concrete or masonry walls or footings shall be placed or installed in chases or recesses which will permit access to the piping for repair or replacement.

8.6(135)T.III Base of stacks.

8.6(1) Supports. Bases of cast-iron stacks shall be supported on concrete, brick laid in cement mortar, metal brackets attached to the building construction, or by other methods approved by the administrative authority.

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CHAPTER 9

INDIRECT WASTE PIPING AND
SPECIAL WASTES

9.1(135)T.III Indirect waste piping.

9.1(1) General. Wastes from the following shall discharge to the building drainage system through an air gap serving the individual fixtures, devices, appliances, or apparatus.

9.1(2) Food handling. Establishments engaged in the storage, preparation, selling, serving, processing, or otherwise handling of food shall have the waste piping from all refrigerators, ice boxes, rinse sinks, cooling or refrigerating coils, laundry washers, extractors, steam tables, egg boilers, coffee urns, or similar equipment discharge indirectly into a water-supplied sink or receptor and the waste outlet shall terminate at least two inches above the flood rim of such sink or receptor.

9.1(3) Commercial dishwashing machines. Dishwashing machines, except those in private living quarters or dwelling units, shall be indirectly connected, except that when a dishwashing machine is located adjacent to a floor drain, the waste from the dishwashing machine may be connected direct on the sewer side of the floor-drain trap.

9.1(4) Interceptor. An interceptor may be placed on the outlet side of the dishwashing machine, or on the discharge side of the indirect waste receptor.

9.1(5) Connection. Drains, overflows, or relief vents from the water-supply system shall not be directly connected to the drainage system.

9.1(6) Sterile materials. Appliances, devices, or apparatus such as stills, sterilizers, and similar equipment requiring water and waste and used for sterile material shall be indirectly connected or provided with an air gap between the trap and the appliance.

9.1(7) Drips. Appliances, devices, or apparatus not regularly classed as plumbing fixtures but which have drips or drainage outlets, may be drained by indirect waste pipes discharging into an open receptacle as provided in 9.1(2)T.III.

9.2(135)T.III Material and size.

9.2(1) Design. The material and size of indirect waste pipes shall be in accordance with the provisions of the other rules of this code applicable to sanitary-drainage piping, except that refrigerator and similar indirect fixtures or appliances may be provided with waste pipes, trapped and of a size not less than one and one-fourth inches for one to two traps; one and one-half inches for three to six traps; and two inches for six to twelve traps.

9.3(135)T.III Length.

9.3(1) Waste pipe. Any indirect waste pipe exceeding three feet in a length shall be trapped.

9.3(2) Venting of indirect wastes. When indirect wastes extend more than one floor above the fixture they discharge over, they must be vented full size through the roof.

9.3(3) Cleaning. Indirect waste piping shall be so installed as to permit ready access for flushing and cleansing.

9.4(135)T.III Air gap or backflow preventer.

9.4(1) Provision of air gap. The air gap between the indirect waste and the building drain system shall be at least twice the effective diameter of the drain served, and shall be as provided in 9.4(2)T.III or 9.4(3)T.III.

9.4(2) Receptor. By extending the indirect waste pipe to an open, accessible slop sink, floor drain, or other suitable fixture which is properly trapped or vented. The indirect waste shall terminate a sufficient distance above the flood level rim of the receiving fixture to provide the required air gap, and shall be installed in accordance with other applicable rules of this code.

9.4(3) Inlet side of trap. By providing a break (air gap) in the drain connection on the inlet side of the trap serving the fixture, device, appliance, or apparatus.

9.5(135)T.III Receptors.

9.5(1) Installation. Waste receptors serving indirect pipes shall not be installed in any toilet room, nor in any inaccessible or unventilated space.

9.5(2) Reserved for future use.

9.5(3) Strainers and baskets. Suitable strainers, baskets, or beehive strainers shall be provided on indirect waste receptors or floor drains receiving such drainage.

9.5(4) Splashing. All plumbing receptors receiving the discharge of indirect waste pipes shall be of such shape and capacity as to minimize splashing or flooding. No plumbing fixture which is used for domestic or culinary purposes shall be used to receive the discharge of an indirect waste pipe.

9.6(135)T.III Clear water wastes.

9.6(1) Method. Waste lifts, expansion tanks, cooling jackets, sprinkler systems, drip

or overflow pans, or similar devices which waste clear water only shall discharge onto a roof or into the building drainage system through an indirect waste or over a suitable floor drain.

9.7(135)T.III Condensers and sumps.

9.7(1) *Direct connection prohibited.* No steam pipe shall connect to any part of a drainage or plumbing system, nor shall any water above 212° F. be discharged into any part of the drainage system. Such pipes may be indirectly connected by discharging through an interceptor or device designed to render such wastes harmless to the plumbing or drainage systems.

9.7(2) *Indirect connection required.* No high pressure steam or blowoff exhaust shall be directly connected to the building drain or sewer. When such waste is directed through an approved and properly vented expansion chamber, condenser, or similar device, designed to reduce the pressure to a safe level and the temperature to or below 212° F., such devices shall discharge to the building sewer.

9.8(135)T.III Drinking fountains.

9.8(1) *Indirect waste permitted.* Drinking fountains may be installed with indirect wastes.

9.9(135)T.III Special wastes.

9.9(1) *Acid waste.* Acid and chemical waste pipes and jointing materials shall be of materials unaffected by the discharge of such wastes.

9.9(2) *Neutralizing device.* In no case shall corrosive liquids, spent acids, or other harmful chemicals which might destroy or injure a drain, sewer, soil, or waste pipe, or which might create noxious or toxic fumes, discharge into the plumbing system without being thoroughly diluted or neutralized by passing through a properly constructed and acceptable dilution or neutralizing device. Such device shall be provided with a sufficient intake of diluting water or neutralizing medium, so as to make its contents noninjurious before being discharged into the soil or sewage system.

9.10(135)T.III Swimming pools.

9.10(1) *Waste piping.* Piping carrying waste water from swimming or wading pools including pool drainage, back wash from filters, or water from scum gutter drains or floor drains which serve walks around pools, shall be installed as an indirect waste pipe utilizing any existing circulation pump, if necessary, when indirect waste pipe is below the sewer grade.

9.10(2) Plans and specifications for public swimming pools shall be submitted for approval to the Iowa state department of health before construction begins.

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CHAPTER 10

WATER SUPPLY AND DISTRIBUTION

10.1(135)T.III Quality of water supply.

10.1(1) *Potable water.* Potable water is water which is satisfactory for drinking, culinary, and domestic purposes, and meets the requirements of accepted standards including those of the state department of health.

10.1(2) *Acceptable sources.* Where a public supply of potable water is not available, requirements satisfactory to the administrative authority shall be observed.

10.1(3) *Nonpotable water.* Where an adequate supply of potable water is not available, nonpotable water may be used for cooling, flushing water closets and urinals and other fixtures not requiring potable water, provided such water shall not be accessible for drinking or culinary purposes, nor cross-connected with a potable water supply.

10.2(135)T.III Color code.

10.2(1) *Identification of piping.* All piping conveying a nonpotable water should be adequately and durably identified by a distinctive yellow-colored paint so that it is readily distinguished from piping carrying potable water. (See Safety Color Code for Marking Physical Hazards, ASA Z53.1-1953, or current issue thereof.)

10.3(135)T.III Water supply.

10.3(1) *Required.* Every building in which plumbing fixtures are installed and are for human occupancy or habitation shall be provided with an ample supply of pure and wholesome water.

10.4(135)T.III Protection of potable water supply.

10.4(1) *Cross-connections.* Potable water-supply piping, water discharge outlets, backflow prevention devices, or similar equipment shall not be so located as to make possible their submergence in any contaminated or polluted liquid or substance.

10.4(2) *Approval of devices.* Before any device for the prevention of backflow or back-siphonage is installed, it shall have first been certified as meeting the requirements of American Standard Backflow Preventers in Plumbing Systems, ASA A40.6-1943, or current issue thereof, by a reputable testing laboratory. Devices installed in a potable water supply system for protection against backflow shall be maintained in good working condition by the person or persons having control of such devices, and if found to be ineffective or inoperative shall require the repair or replacement thereof.

10.4(3) *Backflow.* The water distributing system shall be protected against backflow. Every water outlet shall be protected from backflow, preferably by having the outlet end from which the water flows spaced a distance above the flood-level rim of the receptacle into

which the water flows sufficient to provide a "minimum required air gap" as defined in American Standard Air Gaps in Plumbing Systems, ASA A40.4-1942, or current issue thereof. Where it is not possible to provide a minimum air gap, the water outlet shall be equipped with an accessibly located backflow preventer complying with American Standard Backflow Preventers in Plumbing Systems, ASA A40.6-1943, or current issue thereof, installed on the discharge line of the manual control valve.

10.4(4) Special device. Where it is not possible to provide either a minimum air gap or a backflow preventer, as may be the case in connection with cooling jackets, condensers, or other industrial or special appliances, the administrative authority shall require other means of protection approved by the state department of health.

10.5(135)T.III Vacuum breakers and air gaps.

10.5(1) Flushometer. Flushometer valve shall be equipped with an approved vacuum breaker. The vacuum breaker shall be installed on the discharge side of the flushing valve with the critical level at least four inches above the overflow rim of the bowl.

10.5(2) Flushing tanks. Flushing tanks shall be equipped with an approved ball-cock. The ball-cock shall be installed with the critical level of the vacuum breaker at least one inch above the full opening of the overflow pipe. In cases where the ball-cock has no hush tube, the bottom of the water supply inlet shall be installed one inch above the full opening of the overflow pipe.

10.5(3) Trough urinals. Trough urinals when permitted shall be equipped with a vacuum breaker installed on the discharge side of the last valve and not less than thirty inches above the spray pipe.

10.5(4) Lawn sprinklers. Lawn-sprinkler systems shall be equipped with a backflow preventer on the discharge side of each of the last valves. The backflow preventer shall be at least six inches above the surrounding ground. Where combination control valves and backflow preventers are installed, the bottom of the valve shall constitute the bottom of the backflow preventer.

10.5(5) Water valve outlet. Fixture faucets with hose attachments shall be protected by a backflow preventer installed six inches above the highest point of usage and on the discharge side of the valve.

Faucets or valves independent of fixtures with hose attachments used for special purposes including morgue table cleaning, garbage can washing, special sinks, and chemical sinks, wherever the end of the water supply hose may become submerged shall also be protected as above.

10.5(6) Swimming pools. The water supply for each swimming or wading pool shall be

protected from the pool water by installing the water supply piping to provide a "minimum required air gap" as defined in American Standard Air Gaps in Plumbing Systems, ASA A40.4-1942, or current issue thereof.

10.6(135)T.III Water supply system.

10.6(1) Water service pipe. Materials for water service piping shall be of brass, lead, cast iron, wrought iron, open-hearth iron, or steel pipe or Type K copper tubing, with appropriate approved fittings. [See chapter 3,T.III for standards.] All threaded ferrous pipe and fittings shall have been galvanized (zinc coated) or cement lined. All ferrous pipe threaded joints shall be coal tar enamel coated and wrapped at the time of installation in the trench. Copper pipe and tubing shall be installed such that the color marking is clearly visible at the time of inspection.

At sites having private water supplies, plastic pipe and fittings marked to indicate approval by the National Sanitation Foundation Testing Laboratory, and having properties suitable for the use intended, may be used for drop pipe in jet and suction wells, and well to house piping with such service lines terminating outside the foundation walls; provided that such pipe shall not be used for building or house service lines connected to a public water supply system, nor for drop pipes for submersible or deep well turbine pump installations. When flexible polyethylene pipe is installed in trenches, it shall be laid in snake fashion to provide a uniform slack of at least two inches per one hundred feet of pipe, and it shall not be jacked or pulled.

10.6(2) Separate trenches. The water service pipe and the building drain or building sewer shall be not less than ten feet apart horizontally, and shall be separated by undisturbed or compacted earth.

The water service pipe may be placed in the same trench with the building drain or building sewer, provided the following conditions are met [Also see 11.2(2)]:

a. The bottom of the water service pipe, at all points, shall be at least twelve inches above the top of the sewer line at its highest point.

b. The water service pipe shall be placed on a solid shelf excavated at one side of the common trench. Where ground conditions do not permit a shelf, the pipe may be laid on a solidly tamped backfill.

c. The number of joints in the service pipe shall be kept to a minimum.

d. No portion of the building drain or building sewer shall be under pressure.

10.6(3) Stop-and-waste valve combination. Combination stop-and-waste valves and cocks shall not be installed in any underground potable water supply system unless an approved system of watertight piping from the weep hole of the stop-and-waste valve is installed to drain to a lower protected level.

10.6(4) Private water supply. No private water supply shall be interconnected with any public water supply unless the private supply meets the requirements of the state department of health and the specific written approval of the administrative authority having jurisdiction is obtained.

10.7(135)T.III Water pumping and storage equipment.

10.7(1) Pumps and other appliances. Water pumps, tanks, filters, softeners, compressors, and all other appliances and devices shall be protected against contamination.

10.7(2) Water-supply tanks. Potable-water-supply tanks shall be properly covered to prevent the entrance of foreign material or insects into the water supply. Soil or waste lines shall not pass directly over such tanks.

10.7(3) Pressure tanks, boilers, and relief valves. The drains from pressure tanks, boilers, relief valves, and similar equipment shall only be connected to the drainage system through an indirect waste or over a drain.

10.7(4) Cleaning, painting, repairing water tanks. A potable water-supply tank used for domestic purposes shall not be lined, painted, or repaired with any material which will affect either the taste or the potability of the water supply when the tank is returned to service. Tanks shall be disconnected from the system during such operations, to prevent any foreign fluid or substance entering the distribution piping.

10.8(135)T.III Water-supply tanks—booster system.

10.8(1) When required. When the water pressure from the city mains during flow is insufficient to supply all fixtures freely and continuously, the rate of supply shall be supplemented by a gravity house tank or booster system.

10.8(2) Support. All water-supply tanks shall be supported in accordance with the regulations which apply or with adequate structural design.

10.8(3) Overflow pipes for water-supply tank. Overflow pipes for gravity tanks shall discharge above a roof or catch basin, or they shall discharge over an open, water-supplied sink. Adequate overflow pipes properly screened against the entrance of insects and vermin shall be provided.

10.8(4) Tank supply. The water-supply inlet within the tank shall be at an elevation no less than is required for an air gap in an open tank with overflow, but in no case shall the elevation be less than four inches above the overflow.

10.8(5) Drains. Water supply tanks shall be provided with valved drain lines located at their lowest point and discharged as an indirect waste, or as required for overflow pipes in 10.8(3)T.III.

10.8(6) Size of overflow. Overflow drains for water-supply tanks shall be adequately sized according to the supply.

10.8(7) Gravity and suction tanks. Tanks used for domestic water supply, combined supply to fire standpipes and domestic water system, or to supply standpipes for fire-fighting equipment only, shall be equipped with tight covers which are vermin and rodent proof. Such tanks shall be vented with a return bend vent pipe having an area not less than one-half the area of the down feed riser, and the vent opening shall be covered with a metallic screen.

10.8(8) Pressure tanks. Pressure tanks used for supplying water to the domestic water distribution system, combined supply to fire standpipes, and domestic water system, or to supply standpipes for fire equipment only, shall be equipped with a vacuum-breaking device located on the top of the tank. The air inlet of this device shall be covered with a metallic screen.

10.9(135)T.III Disinfection of potable water system piping.

10.9(1) When required. The administrative authority having jurisdiction may require when necessary that the potable-water system or any part thereof installed or repaired be disinfected in accordance with one of the following methods before it is placed in operation.

10.9(2) Distribution system. The system, or part thereof, shall be filled with a solution containing one hundred parts per million of available chlorine and allowed to stand two hours before flushing and returning to service.

10.9(3) Storage tank. In the case of a potable water storage tank where it is not possible to disinfect as provided in 10.9(2)T.III, the entire interior of the tank shall be swabbed with a solution containing two hundred parts per million of available chlorine, and the tank thoroughly flushed, before returning to service.

10.10(135)T.III Water distribution pipe, tubing, and fittings.

10.10(1) Materials. Materials for water distribution pipes and tubing shall be of brass, copper, lead, cast iron, wrought iron, open-hearth iron, or steel pipe with appropriate approved fittings. [See chapter 3,T.III for standards.] All threaded ferrous pipe and fittings shall have been galvanized (zinc coated) or cement lined and, when such pipe and fittings are used underground inside buildings, they shall be coal tar enamel coated and the threaded joints wrapped at the time of installation. Type K copper may be used under and above ground, Type L may be used above ground, and Type M may be used above ground where the water pressure is less than sixty pounds per square inch. Copper pipe and tubing shall be installed such that the color marking is clearly visible at the time of inspection.

Plastic pipe and fittings marked to indicate approval by the National Sanitation Founda-

tion Testing Laboratory, and having properties suitable for the purpose intended, may be used for cold water piping underground outside the foundation walls of any building, including sprinkling systems serving lawns, golf courses, and similar installations; provided that such pipe shall not be used for building or house service lines connected to a public water supply system. When flexible polyethylene pipe is installed in trenches, it shall be laid in snake fashion to provide a uniform slack of at least two inches per one hundred feet of pipe and it shall not be jacked or pulled.

10.11(135)T.III Allowance for character of water.

10.11(1) *Selection of materials.* When selecting the material and size for water-supply pipe, tubing, or fittings, due consideration shall be given to the working pressure and action of the water on the interior and of the soil, fill, or other material on the exterior of the pipe. No material that would produce toxic conditions in a potable-water-supply system shall be used for piping, tubing, or fittings.

10.11(2) *Used piping.* No piping material that has been used for other than a potable-water-supply system shall be reused in the potable-water-supply system.

10.12(135)T.III Water-supply control.

10.12(1) *Water-supply control.* A main shutoff valve on the water-service pipe shall be provided near the curb, and, also, an accessible shutoff valve shall be provided inside near the entrance of the water-service pipe into the building.

10.12(2) *Tank controls.* Supply lines taken from pressure or gravity tanks shall be valved at or near their source.

10.12(3) *Separate controls for each family unit.* In two-family or multiple dwellings, each family unit shall be controlled by an arrangement of shutoff valves which permit each group of fixtures or the individual fixtures to be shut off without interference with the water supply to any other family unit or other portion of the building.

10.13(135)T.III Sizing the water supply system.

10.13(1) *Water-service pipe.* The water-service pipe from the street main to the water-distribution system for the building shall be of sufficient size to furnish an adequate flow of water to meet the requirements of the building at peak demand, and in no case shall be less than three-fourths inch nominal diameter.

If flushometers or other devices requiring a high rate of water flow are used, the water-service pipe shall be designed to supply this flow.

10.13(2) *Demand load.* The demand load in the building water-supply system shall be based on the number and kind of fixtures installed and the probably simultaneous use of these fixtures.

10.14(135)T.III Sizing the water distribution system.

10.14(1) *Design factors.* The sizing of the water distribution system shall conform with good engineering practice. Design factors used to determine pipe sizes shall be adequate in the judgment of the administrative authority.

10.14(2) *Size of fixture supply.* The minimum size of a fixture-supply pipe shall be as follows:

Type of fixture or device	Pipe size (inch)
Bath tubs	1/2
Combination sink and tray.....	1/2
Drinking fountain	3/8
Dishwasher (domestic)	1/2
Kitchen sink (residential)	1/2
Kitchen sink (commercial)	3/4
Lavatory	3/8
Laundry tray, 1, 2, or 3 compartments....	1/2
Shower (single head)	1/2
Sinks (service, slop)	1/2
Sinks, flushing rim	3/4
Urinal (flush tank)	3/8
Urinal (direct flush valve)	3/4
Water closet (tank type)	3/8
Water closet (flush valve type)	1
Hose bibbs	1/2
Wall hydrant	1/2

For fixtures not listed, the minimum supply branch may be made the same as for a comparable fixture.

The minimum three-fourths inch service should be carried to the hot water heater or third branch opening in the usual residence.

10.15(135)T.III Hot-water distribution.

10.15(1) *Hot water distribution piping.* The sizing of the hot water distribution piping shall conform to good engineering practice. [See 10.14(135)T.III.]

10.16(135)T.III Safety devices.

10.16(1) *Pressure-relief valve.* Pressure-relief valves shall be installed for all equipment used for heating or storage of hot water. The rate of discharge of such a valve shall limit the pressure rise for any given heat input to ten percent of the pressure at which the valve is set to open. The setting shall not exceed the tank working pressure.

10.16(2) *Temperature relief valves or energy shutoff devices.* Temperature relief valves or energy shutoff devices shall be installed for equipment used for the heating or storage of hot water. Each temperature relief valve shall be rated as to its BTU capacity. At 210° F., it shall be capable of discharging sufficient hot water to prevent any further rise in temperature. As an alternative to the temperature relief valve, and in lieu thereof, an energy shutoff device may be used, which will cut off the supply of heat energy to the water tank before the temperature of the water in the tank exceeds 210° F.

10.16(3) *Approvals.* Combination pressure and temperature relief valves, separate pres-

sure and temperature relief valves, or energy shutoff devices, which have been tested and approved by, or meet the specification requirements of the American Gas Association, the Underwriters' Laboratories, Inc., or other recognized approval authorities, shall be considered acceptable.

10.16(4) Relief-valve location. Temperature-relief valves shall be so located in the tank as to be actuated by the water in the top one-eighth of the tank served and in no case more than three inches away from such tank. Pressure-relief valves may be located adjacent to the equipment they serve. There shall be no check valve or shutoff valve between a relief valve and the heater or tank for which it is installed.

10.16(5) Relief outlet wastes. The outlet of a pressure, temperature, or other relief valve shall not be connected to the drainage system as a direct waste but rather directed over a fixture if available or to the floor.

10.16(6) Pressure marking of storage tank. Hot water storage tanks shall be permanently marked in an accessible place with the maximum allowable working pressure.

10.17(135)T.III Miscellaneous.

10.17(1) Drain cock. All storage tanks shall be equipped with adequate drain cocks.

10.17(2) Line valves. Valves in the water-supply distribution system, except those immediately controlling one fixture supply, when fully opened shall have a cross-sectional area of the smallest orifice or opening through which the water flows at least equal to the cross-sectional area of the nominal size of the pipe in which the valve is installed.

10.17(3) Water used for processing. Water used for cooling of equipment or similar purposes shall not be returned to the potable water distributing system. When discharged to the building drainage system, the waste water shall be discharged through an indirect waste pipe or air gap.

10.17(4) Pilot flame safety. All automatic or semiautomatic water heaters using a burner having a pilot flame or low flame burner shall be provided with a suitable safety device which will prevent the escape of fuel in event the pilot flame is extinguished or fails.

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CHAPTER 11

DRAINAGE SYSTEM

11.1(135)T.III Materials.

11.1(1) General. Pipe, tubing, and fittings for drainage systems shall comply with the provisions in chapter 3,T.III.

11.1(2) Above ground piping within buildings. Soil and waste piping for a drainage system within a building shall be of cast iron,

galvanized wrought iron, galvanized open-hearth iron, lead, brass, copper pipe I.P.S., or copper tubing, Types K, L, M, or DWV.

Service weight cast iron soil pipe may be used in buildings of four stories or less, but cast iron pipe in all other buildings shall be extra heavy weight. [See 3.1(1)T.III.] Galvanized steel pipe may be used in buildings of four stories or less.

Copper pipe I.P.S. and copper tubing Types K, L, and M may be used in all buildings. Copper tubing Type DWV may be used in single or two family dwellings, provided that copper tubing has proven to be a suitable material resistant to corrosion in the locality where used. All copper pipe and tubing shall be installed so that the color marking is clearly visible at the time of inspection on the full length of each piece installed.

11.1(3) Underground piping within buildings. Drains within buildings, when underground, shall be of cast iron, lead, copper pipe I.P.S., or copper tubing Types K or L. Service weight cast iron pipe may be used in single and two family dwellings, but cast iron pipe for all other buildings shall be extra heavy weight. [See 3.1(1)T.III.] All copper pipe and tubing shall be installed so that the color marking is clearly visible at the time of inspection on the full length of each piece installed.

11.1(4) Fittings. Fittings on the drainage system shall conform to the type of piping used. [See 2.4(135)T.III.]

11.1(5) Concealed piping. Concealed waste pipes under bathroom floors shall be of lead, brass, copper or cast iron soil pipe up to and including the fixture opening.

11.2(135)T.III Building sewer.

11.2(1) Separate trenches. The building sewer, when installed in a separate trench from the water service pipe [See 10.6(1)T.III] may be of cast iron, vitrified clay, or concrete sewer pipe. For buildings of four stories or less, service weight cast iron [See 3.1(1)T.III] may be used. For single or two family dwellings, cast iron sewer pipe with joints made as provided in 4.2(15)T.III or asbestos-cement sewer pipe may be used. For single or two family dwellings served by private sewage disposal systems, bituminized fibre, or rigid plastic, sewer pipe may be used for building sewers leading to the disposal systems. Joints shall be installed to remain watertight and rootproof.

Bituminized fibre pipe may be used for the building sewer at single or two family dwellings when installed in a separate trench from the water service line, if specifically permitted by municipal ordinance or county regulation.

11.2(2) One trench. The building sewer, when installed in the same trench with the water service pipe, shall be of cast iron pipe so installed to remain watertight and rootproof. For buildings two or more stories in

height, the cast iron pipe shall be extra heavy weight. For building sewers serving single or two family dwellings, the joints may be made as provided in 4.2(15)T.III, provided they are installed to remain watertight and rootproof. Where in the judgment of local authorities, cast iron is not a suitable sewer material for a particular installation, vitrified clay pipe may be used; provided that the joints are made as specified in the first and second paragraphs of 4.2(7)T.III, and that the pipe is installed to remain watertight and rootproof.

11.2(3) Sewer in filled ground. A building sewer or building drain installed in filled or unstable ground shall be of cast iron pipe, except that nonmetallic piping may be laid upon an approved concrete pad if installed in accordance with 11.2(1)T.III.

11.2(4) Sanitary and storm sewers. Where separate systems of sanitary drainage and storm drainage are installed in the same property, the sanitary and storm building sewers or drains may be laid side by side in one trench.

11.2(5) Old house sewers and drains. Old house sewers and house drains may be used in connection with new buildings or new plumbing and drainage work only when they are found, on examination, to conform in all respects to the requirements governing new house sewers.

11.2(6) Separate building sewer. Each new building or existing building in which plumbing is installed shall have an independent connection with a public or private sewer, except as provided below.

Exception: Where one building stands in

the rear of another building or an interior lot and no private independent sewer is available or can be constructed to the rear building through an adjoining alley, court, yard, or driveway, the drain from the front building may be extended to the rear building, and the whole will be considered as one building drain.

11.3(135)T.III Drainage piping installation.

11.3(1) Horizontal drainage piping. Horizontal drainage piping shall be installed at a uniform slope, but at slopes not less than permitted in 11.3(2-4)T.III.

11.3(2) Small piping. Horizontal drainage piping of three-inch diameter and less shall be installed with a fall of not less than one-quarter inch per foot.

11.3(3) Large piping. Horizontal drainage piping of larger than three-inch diameter shall be installed with a fall of not less than one-eighth inch per foot.

11.3(4) Minimum velocity. Where conditions do not permit building drains and sewers to be laid with a fall as great as that specified, then a lesser slope may be permitted providing the computed velocity will be not less than two feet per second.

11.4(135)T.III Fixture units.

11.4(1) Values for fixtures. Fixture-unit values as given in table 11.4(2)T.III designate the relative load weight of different kinds of fixtures which shall be employed in estimating the total load carried by a soil or waste pipe and shall be used in connection with the tables of sizes for soil, waste, and drain pipes for which the permissible load is given in terms of fixture units.

TABLE 11.4(2) *Fixture units per fixture or group*

Fixture type	Fixture-unit value as load factors	Minimum size of trap (inches)
1 bathroom group consisting of water closet, lavatory, and bathtub or shower stall	Tank water closet 6 Flush-valve water closet 8	
Bathtub ¹ (with or without overhead shower)	2	1-½
Bathtub ¹	3	2
Bidet	3	Nominal 1-½
Combination sink-and-tray	3	1-½
Combination sink-and-tray with food disposal unit	4	Separate traps 1-½
Dental unit or cuspidor	1	1-¼
Dental lavatory	1	1-¼
Drinking fountain	½	1
Dishwasher, ² domestic	2	1-½
Floor drains ³	1	2
Kitchen sink, domestic	2	1-½
Kitchen sink, domestic, with food-disposal unit	3	1-½
Lavatory ⁴	1	Small P. O. 1-¼
Do	2	Large P. O. 1-½
Lavatory, barber, beauty parlor	2	1-½
Lavatory, surgeon's	2	1-½
Laundry tray (1 or 2 compartments)	2	1-½
Shower stall, domestic	2	2
Showers (group) per head ²	3	

Sinks:			
Surgeon's	3		1-½
Flushing rim (with valve)	8		3
Service (Trap standard)	3		3
Service (P trap)	2		2
Pot, scullery, etc. ²	4		1-½
Urinal, pedestal, syphon jet, blowout	8	Nominal	3
Urinal, wall lip	4		1-½
Urinal stall, washout	4		2
Urinal trough ² (each 2-foot section)	2		1-½
Wash sink ² (circular or multiple), each set of faucets	2	Nominal	1-½
Water closet:			
Tank-operated	4	Nominal	3
Valve-operated	8		3

¹A shower head over a bathtub does not increase the fixture value.

²See paragraphs 11.4(3) and 11.4(4) for method of computing unit value of fixtures not listed in table 11.4 (2) or for rating of devices with intermittent flows.

³Size of floor drain shall be determined by the area of surface water to be drained.

⁴Lavatories with 1¼- or 1½-inch traps have the same load value; larger P. O. plugs have greater flow rate.

11.4(3) *Unlisted fixtures.* Fixtures not listed in table 11.4 (2)T.III shall be estimated in accordance with table 11.4(3)T.III.

TABLE 11.4(3)

Fixture drain or trap size	Fixture-unit value	Fixture drain or trap size	Fixture-unit value
1¼ inches and smaller	1	2½ inches	4
1½ inches	2	3 inches	5
2 inches	3	4 inches	6

11.4(4) *Values for continuous flow.* For a continuous or semicontinuous flow into a drainage system, such as from a pump, pump ejector, air-conditioning equipment, or similar device, two fixture units shall be allowed for each gallon-per-minute of flow.

11.5(135)T.III *Determination of sizes for the drainage system.*

11.5(1) *Maximum fixture-unit load.* The maximum number of fixture units that may be connected to a given size of building sewer, building drain, horizontal branch, vertical soil or waste stack, is given in tables 11.5 (2) and 11.5(3)T.III.

TABLE 11.5(2) *Building drains and sewers*

Diameter of pipe (inches)	Maximum number of fixture units that may be connected to any portion of the building drain or the building sewer. ¹			
	Fall per foot			
	¼ inch	⅜ inch	½ inch	¾ inch
2			21	26
2½			24	31
3		20 ²	27 ²	36 ²
4		180	216	250
5		390	480	575
6		700	840	1000
8	1400	1600	1920	2300
10	2500	2900	3500	4200
12	3900	4600	5600	6700

¹Includes branches of the building drain.

²Not over 2 water closets.

TABLE 11.5(3) *Horizontal fixture branches and stacks*

Diameter of pipe (inches)	Maximum number of fixtures that may be connected to—			
	Any horizontal ¹ fixture branch	1 stack of 3 stories in height or 3 intervals	More than 3 stories in height	
			Total for stack	Total at 1 story or branch interval
1¼	1	2	2	1
1½	3	4	8	2
2	6	10	24	6
2½	12	20	42	9
3	20 ²	30 ³	60 ³	16 ²
4	160	240	500	90
5	360	540	1100	200
6	620	960	1900	350
8	1400	2200	3600	600
10	2500	3800	5600	1000
12	3900	6000	8400	1500

¹Does not include branches of the building drain.

²Not over 2 water closets.

³Not over 6 water closets.

11.5(4) Minimum size of soil and waste stacks. No soil or waste stack shall be smaller than the largest horizontal branch connected thereto except that a 4x3 w.c. connection shall not be considered as a reduction in pipe size. No main house sewer or drain shall be less than four inches in diameter.

11.5(5) Minimum size of stack-vent or vent stack. Any structure on which a building drain is installed shall have at least one stack-vent or vent stack carried full size through the roof not less than three inches in diameter.

11.5(6) Future fixtures. When provision is made for the future installation of fixtures, those provided for shall be considered in determining the required sizes of drain pipes. Construction to provide for such future installation shall be terminated with a plugged fitting or fittings at the stack so as to form no dead end.

11.6(135)T.III Offsets on drainage piping.

11.6(1) Offsets of 45° or less. An offset in a vertical stack, with a change in direction of 45° or less from the vertical, may be sized as a straight vertical stack. In case a horizontal branch connects to the stack within two feet above or below the offset, a relief vent shall be installed in accordance with 12.18(3)T.III.

11.6(2) Waste stacks serving kitchen sinks. In a one- or two-family dwelling only in which the waste stack or vent receives the discharge of a kitchen-type sink and also serves as a vent for fixtures connected to the horizontal portion of the branch served by the waste stack, the minimum size of the waste stack up to the highest sink branch connection shall be two inches in diameter. Above that point the size of the stack shall be governed by the total number of fixture units vented by the stack.

11.6(3) Above highest branch. An offset above the highest horizontal branch is an

offset in the stack-vent and shall be considered only as it affects the developed length of the vent.

11.6(4) Below lowest branch. In the case of an offset in a soil or waste stack below the lowest horizontal branch, no change in diameter of the stack because of the offset shall be required if it is made at an angle not greater than forty-five degrees. If such an offset is made at an angle greater than forty-five degrees, the required diameter of the offset and the stack below, it shall be determined as for a building drain. [See table 11.5(2)T.III.]

11.6(5) Offsets of more than 45°. A stack with an offset of more than forty-five degrees from the vertical shall be sized as follows:

The portion of the stack above the offset shall be sized as for a regular stack based on the total number of fixture units above the offset.

The upper portion of the stack above the offset shall be sized as for a building drain. [See table 11.5(2)T.III, column 5.]

A relief vent for the offset shall be installed as provided in chapter 12 T.III and in no case shall the horizontal branch connect to the stack within two feet above or below the offset.

11.7(135)T.III Sumps and ejectors.

11.7(1) Building drains below sewer. Building drains which cannot be discharged to the sewer by gravity flow shall be discharged into a tightly covered and vented sump from which the liquid shall be lifted and discharged into the building gravity drainage system by automatic pumping equipment or by any equally efficient method approved by the administrative authority. [Also see 11.7(9)T.III]

11.7(2) Design storage period. The designed storage of drainage in a sump or ejector shall not exceed a period of twelve hours.

11.7(3) Design. Sump and pumping equipment shall be so designed as to discharge

all contents accumulated in the sump during the cycle of emptying operation.

11.7(4) Venting. The system of drainage piping below the sewer level shall be installed and vented, in a manner similar to that of the gravity system.

11.7(5) Duplex equipment. Sumps receiving the discharge of more than six water closets shall be provided with duplex pumping equipment.

11.7(6) Vent sizes. Building sump vents shall be sized in accordance with table 12.21 (5) but shall in no case be sized less than one and one-half inches.

11.7(7) Separate vents. Vents from pneumatic ejectors or similar equipment shall be carried separately to the open air as a vent terminal.

11.7(8) Connection. No direct connection of a steam exhaust shall be made with the building drainage system.

11.7(9) Sumps in single family dwellings. In single family dwellings sumps of approved construction to which no fixtures except one floor drain are connected, and which receive only laundry wastes or basement drainage, need not be airtight nor vented.

11.8(135)T.III Floor drains.

11.8(1) Accessibility. Floor drains shall connect into a trap so constructed that it can be readily cleaned and of a size to serve efficiently the purpose for which it is intended. The drain inlet shall be so located that it is, at all times, in full view.

11.8(2) Connection. Floor drains subject to sewage backflow shall not be directly connected to the drainage system without suitable protection.

11.8(3) Provision for evaporation. Floor-drain trap seals subject to evaporation shall be of the deep-seal type or shall be fed from an approved plumbing fixture. All automatic floor-drain primers directly connected with the water supply are prohibited.

11.8(4) Size. Basement floor drains shall be not less than three inches in size and shall connect to the sewer at least five feet from the base of the stack unless vented.

11.9(135)T.III Frost protection.

11.9(1) Required. No soil or waste pipes shall be installed or permitted outside of a building, or concealed in outside walls or in any place where they may be subjected to freezing temperatures, unless adequate provision is made to protect them from frost. [Filed prior to July 1, 1952; amended December 28, 1955, March 18, 1964]

CHAPTER 12

VENTS AND VENTING

12.1(135)T.III Materials.

12.1(1) Vents. Pipe, tubing, and fittings for the vent piping system shall comply with the provisions in chapter 3,T.III.

12.1(2) Specific type. Standards given in table 3.5(135)T.III apply to the specific materials approved for use and as indicated in the various paragraphs in this chapter as they apply to the venting system.

12.1(3) Above-ground piping. Vent piping above ground shall be of cast iron, galvanized wrought iron, ferrous alloys, lead, brass, copper pipe I.P.S., or copper tubing Types K, L, M, or DWV.

Service weight cast iron pipe may be used in buildings of four stories or less; but cast iron pipe in all other buildings shall be extra heavy weight. [See 3.1(1)T.III.] Galvanized steel pipe may be used in buildings of four stories or less.

Copper pipe I.P.S. and copper tubing Types K, L, and M may be used in all buildings. Copper tubing Type DWV may be used in single or two family dwellings, provided that copper tubing has proven to be a suitable material resistant to corrosion in the locality where used. All copper pipe and tubing shall be installed so that the color marking is clearly visible at the time of inspection on the full length of each piece installed.

12.1(4) Underground. Vent piping placed underground shall be of cast iron, lead, copper pipe I.P.S., or copper tubing Types K or L. Service weight cast iron pipe may be used for single or two family dwellings, but cast iron pipe for all other buildings shall be extra heavy weight. [See 3.1(1)T.III.] All copper pipe and tubing shall be installed so that the color marking is clearly visible at the time of inspection on the full length of each piece installed.

12.1(5) Fittings. Fittings shall conform to the type of pipe used in the vent system as required by 12.1(2, 3)T.III.

12.1(6) Acid system. Vent piping of acid waste systems shall conform to that required for acid waste pipe.

12.2(135)T.III Protection of trap seals.

12.2(1) Traps protected. The protection of trap seals from siphonage or back pressure shall be accomplished by the appropriate use of soil or waste stacks, vents, revents, back vents, loop vents, circuit or continuous vents, or combinations thereof, installed in accordance with the requirements of this chapter.

12.3(135)T.III Vent stacks.

12.3(1) Installation. A vent stack or a main vent shall be installed with a soil or waste stack whenever back vents, relief vents, or other branch vents are required in two or more branch intervals.

12.3(2) Terminal. The vent stack shall terminate independently above the roof of the building or shall be connected with the extension of the soil or waste stack (stack-vent) at least six inches above the flood-level rim of the highest fixture.

12.3(3) Main stack. Every building in which plumbing is installed shall have at least one main stack, which shall run undiminished in size and as directly as possible, from the building drain through to the open air above the roof.

12.4(135)T.III Vent terminals.

12.4(1) Roof extension. Extensions of vent pipes through a roof shall be terminated at least six inches above it or above flood level.

12.4(2) Roof garden. Where a roof is to be used for any purpose other than weather protection, the vent extensions shall be run at least six feet above the roof.

12.4(3) Flashings. Each vent terminal shall be made watertight with the roof by proper flashing of copper or lead.

12.4(4) Flag poling. Vent terminals shall not be used for the purpose of flag poling, TV aerials, or similar purposes, except when the piping has been anchored to the construction and approved as safe by the administrative authority.

12.4(5) Location of vent terminal. No vent terminal from a drainage system shall be directly beneath any door, window, or other ventilating opening of the building or of an adjacent building, nor shall any such vent terminal be within ten feet horizontally of such an opening unless it is at least two feet above or back of the top of such an opening.

12.4(6) Vent terminals of existing buildings. Where a new building is higher than an adjacent existing building, the owner of the new building shall defray the cost of complying with 12.4(5)T.III as approved by the administrative authority.

12.4(7) Extensions outside building. No soil, waste, or vent pipe extension shall be run or placed on the outside of a wall of any new building, but shall be carried up inside the building.

12.5(135)T.III Frost closure.

12.5(1) Vent terminal. The roof terminal of any stack or vent shall be increased in size as shown in the following table:

- 1¼ inches increased to 2½ inches
- 1½ inches increased to 2½ inches
- 2 inches increased to 4 inches
- 2½ inches increased to 4 inches
- 3 inches increased to 5 inches
- 3½ inches increased to 5 inches
- 4 inches increased to 6 inches

12.6(135)T.III Vent grades and connections.

12.6(1) Grade. All vent and branch-vent pipes shall be so graded and connected as to drip back to the soil or waste pipe by gravity.

12.6(2) Vertical rise. Where vent pipes connect to a horizontal soil or waste pipe, the vent shall be taken off above the center line of the soil pipe, and the vent pipe shall rise

vertically, or at an angle not more than 45° from the vertical, to a point at least six inches above the flood-level rim of the fixture it is venting before offsetting horizontally or before connecting to the branch vent.

12.6(3) Height above fixture. A connection between a vent pipe and a vent stack or stack-vent shall be made at least six inches above the flood-level rim of the highest fixtures served by the vent. Horizontal vent pipes forming branch vents, relief vents, or loop vents shall be at least six inches above the flood-level rim of the highest fixture served.

12.7(135)T.III Bars and soda-fountain sinks.

12.7(1) Bar and soda-fountain wastes. A bar or soda fountain may be drained indirectly over a sink or other receptacle and such sink or receptacle shall be located in full view on the same floor level as the bar or fountain it serves, and shall connect directly to the sewer and be properly vented. All such bar or soda-fountain connections shall be installed under the approval of the proper administrative authority.

12.7(2) Sumps. Sinks or sumps, receiving indirect waste, shall be located in a properly lighted and ventilated space.

12.8(135)T.III Fixtures back-to-back.

12.8(1) Distance. Two fixtures set back-to-back, or adjacent to each other within the distance allowed between a trap and its vent, may be served with one continuous soil or waste-vent pipe, provided that each fixture wastes separately into an approved double fitting having inlet openings at the same level. [See 12.10(2)T.III.]

12.9(135)T.III Fixture vents.

12.9(1) Distance of trap from vent. Each fixture trap shall have a protecting vent so located that the slope and the developed length in the fixture drain from the trap weir to the vent fitting are within the requirements set forth in table 12.9(3)T.III.

12.9(2) Trap-seal protection. The plumbing system shall be provided with a system of vent piping which will permit the admission or emission of air so that under normal and intended use the seal of any fixture trap shall not be subjected to a pressure differential of more than one inch of water.

12.9(3) Table. Distance of fixture trap from vent, using sanitary Tee connection:

Size of fixture and drain (inches)	Distance trap to vent (feet)	Distance trap to vent (inches)
1¼	5	0
1½	6	0
2	8	0
3	12	0
4	12	0

12.9(4) Trap dip. The vent pipe opening from a soil or waste pipe, except for water closets and similar fixtures, shall not be below the top weir of the trap.

12.9(5) Crown vent. No back vent shall be installed within two pipe diameters of the trap weir.

12.10(135)T.III Common vent.

12.10(1) Individual vent. An individual vent, installed vertically, may be used as a common vent for two fixture traps when both fixture drains connect with a vertical drain at the same level.

12.10(2) Common vent. A common vent may be used for two fixtures set on the same floor level but connecting at different levels in the stack, provided the vertical drain is one pipe size larger than the upper fixture drain but in no case smaller than the lower fixture drain, whichever is the larger and that both drains conform to table 12.9(3)T.III.

12.11(135)T.III Vents for fixture trap below trap dip.

12.11(1) Hydraulic gradient. Fixture drains shall be vented within the hydraulic gradient between the trap outlet and vent connection, but in no case shall the unvented drain exceed the distance provided for in table 12.9(3)T.III.

12.11(2) Different levels. If any stack has fixtures entering at different levels, the fixtures other than the fixture entering at the highest level shall be vented, except as may be permitted in other rules of this chapter.

12.12(135)T.III Wet venting.

12.12(1) Single bathroom groups. A group of fixtures located on the same floor level may be group vented, providing that the highest fixture trap of such a group is not more than four feet above the lowest fixture trap, but such installations shall be subject to the following limitations:

a. One fixture of two or less units may drain into the vent of a three-inch closet branch.

b. One fixture of two or less units may drain into the vent of a one and one-half inch bathtub waste pipe.

c. Two fixtures of two or less units may drain into the vent of a two-inch bathtub waste serving two or less tubs providing that they drain into the vent at the same level.

12.12(2) Double bathroom group. Where bathrooms or water closets or other fixtures are located on opposite sides of a wall or partition or are adjacent to each other within the prescribed distance, such fixtures may have a common soil or waste pipe and common vent. Water closets having a common soil and vent stack shall drain into the stack at the same level.

12.12(3) Multistory bathroom groups. On the lower floors of a multistory building, the waste pipe from one or two lavatories may be used as a wet vent for one or two bathtubs or showers provided that:

a. The wet vent and its extension to the vent stack is two inches in diameter.

b. Each water closet below the top floor is individually back vented.

c. The vent stack is sized as given in the following table:

<i>Size of vent stacks</i>	<i>Diameter of vent stacks (inches)</i>
Number of wet-vented fixtures	
1 or 2 bathtubs or showers	2
3 to 5 bathtubs or showers	2½
6 to 9 bathtubs	3
10 to 16 bathtubs	4

12.12(4) Reserved for future use.

12.12(5) Basement closets. Basement closets, or floor drains, may be vented by the waste line from a first floor sink or lavatory having a one and one-half inch waste and vent pipe.

12.13(135)T.III Stack venting.

12.13(1) One-bathroom group. A group of fixtures, consisting of one bathroom group and a kitchen sink or combination fixture, may be installed without individual fixture vents, in a one-story building, or on the top floor of a building, providing that the highest fixture trap of such a group is not more than four feet above the lowest fixture trap.

12.14(135)T.III Individual fixture reventing.

12.14(1) Horizontal branches. With the fixtures located in the same room, one sink and one lavatory, or three lavatories (within eight feet developed length of a main-vented line) may be installed on a two-inch horizontal waste branch without reventing, provided the branch is not less than two inches in diameter throughout its length, and provided that the wastes are connected into the side of the branch and the branch leads to its sanitary tee stack connection with a slope of not more than one-fourth inch per foot.

12.14(2) Where required. When fixtures other than water closets or floor drains discharge downstream from a water closet, each fixture connecting downstream shall be individually vented, except as in 12.23(1)T.III.

12.14(3) Limits of fixture units above highest bathroom groups. A fixture or combination of fixtures whose total discharge rating is not more than three fixture units may discharge into a stack not less than three inches in diameter without reventing, provided such fixture connections are made above the connection to the highest bathroom group, and the fixture unit rating of the stack is not otherwise exceeded, and their waste piping is installed as otherwise required in 12.14(1)T.III. When this is done, vents from lower fixtures shall be carried above the highest fixture waste connection to the stack.

12.15(135)T.III Circuit and loop venting.

12.15(1) Battery venting. A branch soil or waste pipe to which two but not more than eight water closets, pedestal urinals, trap

standard to floor, shower stalls, or floor drains are connected in battery, shall be vented by a circuit or loop vent which shall take off in front of the last fixture connection. In addition, lower-floor branches serving more than three water closets shall be provided with a relief vent taken off in front of the first fixture connection.

12.15(2) Dual relief vents. Two-circuit vented horizontal branches serving a total of not more than eight water closets in the same branch interval shall have a dual relief vent. Where the vents are joined, the point of joining shall be at least six inches above the flood-level rim of the highest fixture connected to either branch. When other fixtures discharge above such a branch, each branch shall be provided with a vent.

12.15(3) Vent connections. When the circuit, loop, or relief vent connections are taken off the horizontal branch, the vent branch connection shall be taken off at vertical angle or from the top of the horizontal branch.

12.16(135)T.III Pneumatic ejectors.

12.16(1) Vent installation. Relief vents from a pneumatic ejector shall not be connected to a fixture-branch vent but shall be carried separately to a main vent or stack-vent or to the open air.

12.17(135)T.III Relief vents.

12.17(1) Stacks of more than ten branch intervals. Soil and waste stacks in buildings having more than ten branch intervals shall be provided with a relief vent at each tenth interval installed, beginning with the top floor. The size of the relief vent shall be equal to the size of the vent stack to which it connects. The lower end of each relief vent shall connect to the soil or waste stack through a Y below the horizontal branch serving the floor and the upper end shall connect to the vent stack through a Y not less than three feet above the floor levels.

12.18(135)T.III Offsets at an angle less than 45° from the horizontal in buildings of five or more stories.

12.18(1) Offset vents. Offsets less than 45° from the horizontal, in a soil or waste stack, except as permitted in 11.6(135)T.III, shall comply with 12.18(2, 3)T.III.

12.18(2) Separate venting. Such offsets may be vented as two separate soil or waste stacks, namely, the stack section below the offset and the stack section above the offset.

12.18(3) Offset reliefs. Such offsets may be vented by installing a relief vent as a vertical continuation of the lower section of the stack or as a side vent connected to the lower section between the offset and the next lower fixture or horizontal branch. The upper section of the offset shall be provided with a yoke

vent. The diameter of the vents shall be not less than the diameter of the main vent, or of the soil and waste stack, whichever is the smaller.

12.19(135)T.III Main vents to connect at base.

12.19(1) Size. All main vents or vent stacks shall connect full size at their base to the building drain or to the main soil or waste pipe, at or below the lowest fixture branch. All vent pipes shall extend undiminished in size above the roof, or shall be reconnected with the main soil or waste vent.

12.20(135)T.III Vent headers.

12.20(1) Connections of vents. Stack-vents and vent stacks may be connected into a common vent header at the top of the stacks and then extended to the open air at one point. This header shall be sized in accordance with the requirements of table 12.21(5)T.III, the number of units being the sum of all units on all stacks connected thereto, and the developed length being the longest vent length from the intersection at the base of the most distant stack to the vent terminal in the open air as a direct extension of one stack.

12.21(135)T.III Size and length of vents.

12.21(1) Length of vent stacks. The length of the vent stack or main vent shall be its developed length from the lowest connection of the vent system with the soil stack, waste stack, or building drain to the vent stack terminal, if it terminates separately in the open air, or to the connection of the vent stack with the stack-vent, plus the developed length of the stack-vent from the connection to the terminal in the open air, if the two vents are connected together with a single extension to the open air.

12.21(2) Size of individual vents. The diameter of an individual vent shall be not less than one and one-fourth inches or less than one-half the diameter of the drain to which it is connected.

12.21(3) Size of relief vent. The diameter of a relief vent shall be not less than one-half the diameter of the soil or waste branch to which it is connected.

12.21(4) Size of circuit or loop vent. The diameter of a circuit or loop vent shall be not less than one-half the size of the diameter of the horizontal soil or waste branch or the diameter of the vent stack, whichever is the smaller.

12.21(5) Size of vent piping. The size of vent piping shall be determined from its length and the total of fixture units connected thereto, as provided in table 12.21(5)T.III. Twenty percent of the total length may be installed in a horizontal position.

TABLE 12.21 (5) size and length of vents

Size of soil or waste stack (inches)	Fixture units connected	Diameter of vent required (inches)								
		1¼	1½	2	2½	3	4	5	6	8
		Maximum length vent (feet)								
1¼	2	30								
1½	8	50	150							
1½	10	30	100							
2	12	30	75	200						
2	20	26	50	150						
2½	42		30	100	300					
3	10		30	100	200	600				
3	30			60	200	500				
3	60			50	80	400				
4	100			35	100	200	1000			
4	200			30	90	250	900			
4	500			20	70	180	700			
5	200				35	80	350	1000		
5	500				30	70	300	900		
5	1100				20	50	200	700		
6	350				25	50	200	400	1300	
6	620				15	30	125	300	1100	
6	960					24	100	250	1000	
6	1900					20	70	200	700	
8	600						50	150	500	1300
8	1400						40	100	400	1200
8	2200						30	80	350	1100
8	3600						25	60	250	800
10	1000							75	125	1000
10	2500							50	100	500
10	3800							30	80	350
10	5600							25	60	250

12.22 Reserved for future use.

12.23(135)T.III Vents not required.

12.23(1) Vents not required. No vents will be required on a downspout or rain leader trap, a backwater valve, a subsoil catch basin trap, on a three-inch basement floor drain, or a water closet, provided its drain branches into the house drain on the sewer side at a distance of five feet or more from the base of the stack and the branch line to such floor drain or water closet is not more than twelve feet in length.

12.24(135)T.III Special waste and vent installations.

12.24(1) Where permitted. Where unusual design and structural conditions appear to preclude or prevent the conventional installations of plumbing in accord with this code, the administrative authority should be consulted.

[Filed prior to July 1, 1952; amended December 28, 1955, March 18, 1964]

CHAPTER 13
STORM DRAINS

13.1(135)T.III General.

13.1(1) Drainage required. Roofs, paved areas, yard, courts, and courtyards shall be drained into a storm sewer when such a sewer is abutting the property, or otherwise avail-

able as required by the local administrative authority.

Such drainage may be discharged into a combined sewer system where such a system is available and where not prohibited by the administrative authority having jurisdiction.

13.1(2) Prohibited drainage. Storm water shall not be drained into sewers intended for sewage only.

13.1(3) Traps. Leaders or downspouts, when connected to a combined sewer, shall be trapped.

13.1(4) Expansion joints. Expansion joints or sleeves shall be provided where warranted by temperature variations or physical conditions.

13.1(5) Subsoil drainage. No subsoil drainage system shall be installed to drain into a sewer intended for sanitary sewage unless approval is obtained from the proper local administrative authority.

13.1(6) Subsoil drain. Where subsoil drains are placed under the cellar or basement floor or are used to surround the outer walls of a building, they shall be made of open-jointed, horizontally split, or perforated clay tile; or perforated bituminized fibre pipe, asbestos-cement pipe, or rigid plastic pipe; not less than four inches in diameter. They shall be drained over an open floor drain that is supplied with water; and the subsoil drain shall be equipped with an approved type of back water valve if the building is subject to flooding.

Subsoil drains may discharge into a properly installed sump. Such sumps do not require vents. The building storm and subsoil drainage systems shall be connected to a storm sewer when such a sewer abuts the property.

13.1(7) Building subdrains. Building subdrains located below the public sewer level shall discharge into a sump or receiving tank, the contents of which shall be automatically lifted and discharged into the drainage system as required for building sumps. [See section 11.7(135)T.III.]

13.2(135)T.III Materials.

13.2(1) Inside conductors. Conductors placed within a building or run in a vent or pipe shaft shall be of cast iron, galvanized steel, galvanized wrought iron, galvanized ferrous alloys pipe, brass, copper tubing, or lead.

13.2(2) Outside leaders. When outside leaders are of sheet metal and connected with a building storm drain or storm sewer, they shall be connected to a cast iron drain extending above the finish grade, or the sheet metal leader shall be protected against injury.

13.2(3) Underground storm drains. Building storm drains underground, inside the building, shall be of cast iron soil pipe or copper pipe or copper tubing.

13.2(4) Building storm drains. Building storm drains, underground, beneath the building, shall be of cast iron soil pipe or copper pipe or copper tubing.

13.2(5) Building storm sewers. The building storm sewer shall be of cast iron soil pipe, vitrified clay pipe, concrete pipe, bituminized-fibre pipe, or asbestos-cement pipe. Cement mortar joints may be used in clay and cement pipe.

13.3(135)T.III Traps.

13.3(1) Main trap. Storm water drains connected to a combined sewage system shall be trapped except where the roof or gutter opening is located in accord with the requirements for vent terminals, 12.4(5)T.III. One trap may serve several conductors but traps must be set below frost or inside the building.

13.3(2) Material. Storm water traps, when required, shall be of cast iron or copper pipe or copper tubing.

13.3(3) Exception. No traps shall be required for storm water drains which are connected to a sewer carrying storm water exclusively.

13.3(4) Size. Traps for individual conductors shall be the same size as the horizontal branch to which they are connected.

13.3(5) Location. Conductor traps shall be so located that an accessible clean-out may be installed on the building side of the trap.

13.4(135)T.III Conductors and connections.

13.4(1) Prohibited uses. Conductor pipes shall not be used as soil, waste, or vent pipes, nor shall soil, waste, or vent pipes be used as conductors.

13.4(2) Protection. Rain water conductors installed along alleyways, driveways, or other locations where they may be exposed to damage shall be protected by metal guards, recessed into the wall, or constructed from ferrous alloy pipe.

13.5(135)T.III Roof drains.

13.5(1) Material. Roof drains shall be of cast iron, copper, lead, or other acceptable corrosion-resisting material, securely bolted or screwed to the conductor or leader.

13.5(2) Strainers. All roof areas, except those draining to hanging gutters, shall be equipped with roof drains having strainers.

13.5(3) Flat decks. Roof drain strainers for use on sun decks, parking decks, and similar areas, normally serviced and maintained, may be of the flat surface type, level with the deck.

13.5(4) Roof drain flashings. The connection between roofs and roof drains which pass through the roof and into the interior of the building shall be made watertight by the use of proper flashing material or roof connection.

13.6(135)T.III Size of leaders and storm drains.

13.6(1) Leaders. Vertical leaders shall be sized on the maximum projected roof area, according to the following table:

TABLE 13.6(1)
size of vertical leaders

Diameter of leader or conducted ¹ (inches)	Maximum projected roof area (sq. feet)
2	720
2½	1,300
3	2,200
4	4,600
5	8,650
6	13,500
8	29,000

¹The equivalent diameter of a square or rectangular leader may be taken as the diameter of that circle which may be inscribed within the cross-sectional area of the leader.

Note. See footnote to table 13.6(2)T.III.

13.6(2) Building storm drain. The size of the building storm drain or any of its horizontal branches having a slope of one-half inch or less per foot, shall be based upon the maximum projected roof area to be handled according to the following table:

TABLE 13.6(2)
size of horizontal storm drains

Diameter of drain (inches)	Maximum projected roof area for drains for various slopes		
	½ inch sq. ft.	¼ inch sq. ft.	⅓ inch sq. ft.
3	822	1,160	1,644
4	1,880	2,650	3,760
5	3,340	4,720	6,680
6	5,350	7,550	10,700
8	11,500	16,300	23,000
10	20,700	29,200	41,400
12	33,300	47,000	66,600
15	59,500	84,000	119,000

Tables 13.6(1)T.III and 13.6(2)T.III are based on a maximum rate of rainfall of four inches per hour.

13.6(3) Roof gutters. The size of semi-circular gutters shall be based on the maximum projected roof area, according to the following table:

TABLE 13.6 (3) size of gutters

Diameter of gutter ¹ inches	Maximum projected roof area for gutters of various slopes			
	⅛ inch (sq. ft.)	¼ inch (sq. ft.)	⅓ inch (sq. ft.)	½ inch (sq. ft.)
3	170	240	340	480
4	360	510	720	1020
5	625	880	1250	1770
6	900	1360	1920	2770
7	1380	1950	2760	3900
8	1990	2800	3980	5600
10	3600	5100	7200	10000

¹Gutters other than semicircular may be used provided they have an equivalent cross-sectional area.

13.7(135)T.III Size of combined drains and sewers.

13.7(1) Conversion of roof area to fixture units. In computing the size of combined building drains or sewers to which storm drains serving a roof, court, or paved area are to be connected, the area drained may be converted to equivalent fixture unit loads by placing a value of two hundred fifty-six fixture units on the first one thousand square feet, or portion thereof, of area to be drained; and one additional fixture unit for each 3.9 square feet thereafter.

13.8(135)T.III Values for continuous flow.

13.8(1) Flow factor. Where there is a continuous or semicontinuous discharge into the building storm drain or building storm sewer, as from a pump, ejector, air-conditioning plant, or similar device, each gallon per minute of such discharge shall be computed as being equivalent to twenty-four square feet of roof area, based on a four-inch rainfall.

[Filed prior to July 1, 1952; amended December 28, 1955, March 18, 1964]

CHAPTER 14

INSPECTION AND TESTS

14.1(135)T.III Inspections.

14.1(1) New work. All new plumbing work, and such portions of existing systems as may be affected by new work or any changes, shall be inspected to insure compliance with

all the requirements of this code and to assure that the installation and construction of the plumbing system is in accordance with approved plans.

14.2(135)T.III Notification.

14.2(1) Advance notice. It shall be the duty of the holder of a permit to give notice to the administrative authority when plumbing work is ready for test or inspection.

14.2(2) Responsibility. It shall be the duty of the holder of a permit to make sure that the work will stand the test prescribed before giving the notification.

14.2(3) Retesting. If the administrative authority finds that the work will not pass the test, necessary corrections shall be made and the work shall then be resubmitted for test or inspection.

14.2(4) Tests. Tests shall be conducted in the presence of the administrative authority or of his duly appointed representative.

14.3(135)T.III Plumbing plans.

14.3(1) Examination of plans. All plans and specifications required to be submitted shall be examined by the administrative authority for acceptability under the provisions of this code.

14.4(135)T.III Violations.

14.4(1) Notice delivery. Notices of violations shall be mailed or delivered by the administrative authority to the person responsible at the time inspection was made.

14.5(135)T.III Covering of work.

14.5(1) Requirements. No drainage or plumbing system or part thereof shall be covered until it has been inspected, tested, and accepted as prescribed in this code.

14.5(2) Uncovering. If any building drainage or plumbing system or part thereof which is installed, altered, or repaired, is covered before being inspected, tested, and approved, as prescribed in this code, it shall be uncovered for inspection after notice to uncover the work has been issued to the responsible person by the administrative authority.

14.6(135)T.III Material and labor for tests.

14.6(1) Facilities to be provided. The equipment, material, and labor necessary for inspection or tests shall be furnished by the person to whom the permit is issued or by whom inspection is requested.

14.7(135)T.III Tests of drainage and vent systems.

14.7(1) Requirements. The piping of the plumbing, drainage, and venting systems shall be tested with water or air. After the plumbing fixtures have been set and their traps filled with water, the entire drainage system shall be submitted to a final inspection. The administrative authority may require the removal of any cleanouts, to ascertain if the pressure has reached all parts of the system.

14.8(135)T.III Methods of testing drainage and vent systems.

14.8(1) Water test. The water test shall be applied to the drainage system either in its entirety or in sections. If applied to the entire system, all openings in the piping shall be tightly closed, except the highest opening, and the system filled with water to point of overflow. If the system is tested in sections, each opening shall be tightly plugged except the highest opening of the section under test, and each section shall be filled with water, but no section shall be tested with less than a ten-foot head of water. In testing successive sections, at least the upper ten feet of the next preceding section shall be tested, so that no joint or pipe in the building (except the uppermost ten feet of the system) shall have been submitted to a test of less than a ten-foot head of water. The water shall be kept in the system, or in the portion under test, for at least fifteen minutes before inspection starts; the system shall then be tight at all points.

14.8(2) Air test. The air test shall be made by attaching an air compressor testing apparatus to any suitable opening, and, after closing all other inlets and outlets to the system, forcing air into the system until there is a uniform gauge pressure of five pounds per square inch or sufficient to balance a column of mercury ten inches in height. This pressure shall be held without introduction of additional air for a period of at least fifteen minutes.

14.9(135)T.III Building sewer.

14.9(1) Test required. Building sewers shall be tested.

14.9(2) Method. Test shall consist of plugging end of building sewer at point of connection with the public sewer and filling the building sewer with water and testing with not less than a ten-foot head of water.

14.10(135)T.III Inspection and tests not required.

14.10(1) Exception. No test or inspection shall be required where a plumbing system, or part thereof, is set up for exhibition purposes and has no connection with a water or drainage system.

14.11(135)T.III Tests of water-supply system.

14.11(1) Test of system. Upon completion of a section or of the entire water-supply system, it shall be tested and proved tight under a water pressure not less than the working pressure under which it is to be used. The water used for tests shall be obtained from a potable source of supply.

14.12(135)T.III Tests of interior leaders.

14.12(1) Tests of leaders. Leaders or downspouts and branches within a building may be tested by water or air in accordance with 14.8(1, 2)T.III.

14.13(135)T.III Certificate of approval.

14.13(1) Records required. Upon satisfactory completion and final tests of the plumbing system, the administrative authority shall keep a permanent record thereof and shall issue a written approval upon request.

14.14(135)T.III Defective plumbing.

14.14(1) Correction required. Wherever there is reason to believe that the plumbing system of any building has become defective, it shall be subjected to test or inspection, and any defects found shall be corrected as required in writing by the administrative authority.

All installed plumbing systems and fixtures attached thereto found defective or in an insanitary condition, shall be repaired, renovated, replaced, or removed within ten days upon written notice from the proper administrative authority. When defective plumbing is found to be dangerous to the health of the occupants of a building or to the patrons of a food establishment, the proper administrative authority shall notify the health officer having jurisdiction, and said health officer shall take immediate steps to protect the health of such occupants or patrons. In the event the proper administrative authority is of the opinion the defect found endangers the public water supply, the defects shall be immediately corrected or the plumbing system disconnected from the public water supply.

[Filed July 1, 1952; amended December 28, 1955, March 18, 1964]

TITLE IV

AIR POLLUTION CONTROL COMMISSION

[See also Threshold Limit Values, p. 279.]

CHAPTER 1

DEFINITIONS

1.1(136B)T.IV General.

1.1(1) *Meaning.* For the purpose of these rules, the following terms shall have the meaning indicated in this chapter. The definitions set out in section 136B.2 of the Code, shall be considered to be incorporated verbatim in these rules.

1.1(2) *Scope.* No attempt is made to define ordinary words which are used in accordance with their established dictionary meanings, except where the context otherwise requires and it is necessary to define the meaning as used in these rules to avoid misunderstanding.

1.2(136B)T.IV Definition of terms.

1.2(1) *Air quality standard.* An allowable level of air contaminant or atmospheric air concentration established by the commission.

1.2(2) *ASME.* The American Society of Mechanical Engineers, 345 East 47th Street, New York, New York.

1.2(3) *ASTM.* The American Society for Testing Materials, 1916 Race Street, Philadelphia, Pennsylvania.

$$\text{Coh/1000 linear feet} = \frac{(\text{Area tape, ft}^2) (100,000) \log \frac{100}{\text{per cent transmission}}}{(\text{Volume of air sample, ft}^3)}$$

1.2(10) *Combustion for indirect heating.* The combustion of fuel to produce usable heat that is to be transferred through a heat-conducting materials barrier or by a heat storage medium to a material to be heated so that the material being heated is not contacted by, and adds no substance to, the products of combustion.

1.2(11) *Control equipment.* Any equipment that has the function to prevent the formation of or the emission to the atmosphere of air contaminants from any fuel burning, incinerator, or process equipment.

1.2(12) *Criteria.* Information used as guidelines for decisions when establishing air quality goals, air quality standards, and the various air quality levels, and which in no case is to be confused or used interchangeably with air quality goals or standards.

1.2(13) *Electric furnace.* A furnace in which the melting and refining of metals are accomplished by means of electrical energy.

1.2(14) *Emission standard.* The maximum allowable discharge rate of any given air contaminant to the atmosphere as established by the commission.

1.2(15) *Equipment.* Equipment capable of emitting air contaminants to produce air pollution such as fuel burning, combustion, or

1.2(4) *Auxiliary fuel firing equipment.* Equipment to supply additional heat, by the combustion of an auxiliary fuel, for the purpose of attaining temperatures sufficient to dry and ignite the waste material, to maintain ignition thereof, and to promote complete combustion of combustible gases, solids, and vapors.

1.2(5) *Backyard burning.* The burning of rubbish originating on the premises by residents or owners of the premises.

1.2(6) *BTU.* British Thermal Unit, the quantity of heat required to raise one pound of water from 59° F. to 60° F.

1.2(7) *Carbonaceous fuel.* Any form of combustible matter (whether solid, liquid, vapor, or gas) consisting primarily of carbon-containing compounds in either fixed or volatile form, and which is burned primarily for its heat content.

1.2(8) *Chimney or stack.* Any flue, conduit, or duct permitting the discharge or passage of air contaminants into the open air, or constructed or arranged for this purpose.

1.2(9) *Coh/1000 linear feet.* Coefficient of haze per 1000 linear feet, which is a measure of the optical density of a filtered deposit of particulate matter as given in ASTM Standard D-1704-61, and indicated by the following formula:

process devices or apparatus including but not limited to, fuel burning equipment, refuse-burning equipment used for the burning of fuel or other combustible material from which the products of combustion are emitted; and including, but not limited to, apparatus, equipment, or process devices which generate heat and may emit products of combustion, and manufacturing, chemical, metallurgical, or mechanical apparatus or process devices which may emit smoke, particulate matter, or other air contaminants.

1.2(16) *Excess air.* That amount of air supplied in addition to the theoretical quantity necessary for complete combustion of all fuel or combustible waste material present.

1.2(17) *Existing equipment.* Equipment, machines, devices, or installations that are in operation at the effective date of these rules.

1.2(18) *Foundry cupola.* A stack-type furnace used for melting of metals consisting, but not limited to, the furnace proper, tuyeres, fans, or blowers, tapping spout, charging equipment, gas cleaning devices, and other auxiliaries.

1.2(19) *Garbage.* All solid and semisolid putrescible and nonputrescible animal and vegetable wastes resulting from the handling, preparing, cooking, storing, and serving of food

or of material intended for use as food, but excluding recognized industrial by-products.

1.2(20) Gas cleaning device. A facility designed to remove air contaminants from gases exhausted from equipment as defined herein.

1.2(21) Goal. A level of air quality which is expected to be obtained.

1.2(22) Heating value. The heat released by combustion of one pound of waste or fuel measured in BTU's on an as received basis. For solid fuels, the heating value shall be determined by use of ASTM Standard D2015-66.

1.2(23) Incinerator. A combustion apparatus designed for high temperature operation in which solid, semisolid, liquid, or gaseous combustible wastes are ignited and burned efficiently, and from which the solid residues contain little or no combustible material.

1.2(24) Level. A certain specified degree, quality, or characteristic.

1.2(25) New equipment. Any equipment or control equipment not under construction or for which components have not been purchased on the effective date of these rules, and any equipment which is altered or modified after such date, which may cause the emission of air contaminants or eliminate, reduce, or control the emissions of air contaminants.

1.2(26) Objective. A certain specified degree, quality, or characteristic.

1.2(27) Open burning. Any burning of combustible materials where the products of combustion are emitted into the open air without passing through a chimney or stack.

1.2(28) Particulate matter. Any material, except uncombined water, that exists in a finely divided form as a liquid or solid at standard conditions.

1.2(29) Parts per million (PPM). A term which expresses the volumetric concentration of one material in one million unit volumes of a carrier material.

1.2(30) Plan documents. The reports, proposals, preliminary plans, survey and basis of design data, general and detail construction plans, profiles, specifications, and all other information pertaining to equipment.

1.2(31) Process. Any action, operation or treatment, and all methods and forms of manufacturing or processing, that may emit smoke, particulate matter, gaseous matter, or other air contaminant.

1.2(32) Process weight. The total weight of all materials introduced into any source operation. Solid fuels charged will be considered as part of the process weight, but liquid and gaseous fuels and combustion air will not.

1.2(33) Process weight rate. For continuous or long-run steady-state source operations, the total process weight for the entire period of continuous operation or for a typical portion thereof, divided by the number of hours

of such period or portion thereof; or for a cyclical or batch source operation, the total process weight for a period that covers a complete operation or an integral number of cycles, divided by the number of hours of actual process operation during such a period. Where the nature of any process or operation, or the design of any equipment, is such as to permit more than one interpretation of this definition, the interpretation that results in the minimum value for allowable emission shall apply.

1.2(34) Refuse. Garbage, rubbish, and all other putrescible and nonputrescible wastes, except sewage and water-carried trade wastes.

1.2(35) Ringelmann chart. The chart published and described in Information Circular 8333, Bureau of Mines, U. S. Department of Interior, and on which are illustrated graduated shades of gray to black for use in estimating the apparent density of smoke from combustion stacks.

1.2(36) Rubbish. All waste materials of nonputrescible nature.

1.2(37) Salvage operations. Any business, industry, or trade engaged wholly or in part in salvaging or reclaiming any product or material, including, but not limited to, chemicals, drums, metals, motor vehicles; or shipping containers.

1.2(38) Smoke. Gas-borne particles resulting from incomplete combustion, consisting predominantly, but not exclusively, of carbon, and other combustible material, or ash, that form a visible plume in the air.

1.2(39) Smoke monitor. A device using a light source and a light detector which can automatically measure and record the light-obscuring power of smoke at a specific location in the flue or stack of a source.

1.2(40) Source operation. The last operation preceding the emission of an air contaminant, and which results in the separation of the air contaminant from the process materials or in the conversion of the process materials into air contaminants, but is not an air pollution control operation.

1.2(41) Standard conditions. A gas temperature of 68° F. and a gas pressure of 29.92 inches of mercury absolute.

1.2(42) Standard cubic foot (SCF). The volume of one cubic foot of gas at standard conditions.

1.2(43) Standard metropolitan statistical area (SMSA). An area which has at least one city with a population of at least fifty thousand, and such surrounding areas as geographically defined by the U. S. Bureau of the Budget.

1.2(44) Theoretical air. The exact amount of air required to supply the required oxygen for complete combustion of a given quantity of a specific fuel or waste.

1.2(45) Trade waste. All solid or liquid material or rubbish resulting from building operations, construction, or the conduct of any business, industry, or trade, including, but not

limited to, chemicals, cinders, grease, paint, plastic products, and other forms of liquid or solid waste materials.

1.2(46) Variance. A temporary waiver from rules, regulations, or standards governing the quality, nature, duration, or extent of emissions granted by the commission for a specified period of time.

These rules are intended to implement section 136B.4(3, 5) of the Code.

[Filed August 24, 1970]

CHAPTER 2
COMPLIANCE

2.1(136B)T.IV Compliance schedule.

2.1(1) New equipment. All new equipment and all new control equipment, as defined herein, installed in this state shall perform in conformance with applicable emission standards specified in chapter 4,T.IV.

2.1(2) Existing equipment. All existing equipment, as defined herein, shall be in conformance with applicable emission standards specified herein as provided below.

a. Within standard metropolitan statistical areas. The emission standards specified for new equipment in chapter 4 shall apply except as provided in 3.2(136B)T.IV, to all existing equipment located within a standard

metropolitan statistical area of Iowa as listed in 2.1(3) below.

If compliance with said emission standards cannot be attained within sixty days after the effective date of these rules, the person responsible for the existing equipment shall, within the sixty-day period, submit to the technical secretary a letter of intent, as described in 3.3(136B)T.IV, to file an air contaminant emission reduction program, as described in 3.4(136B)T.IV.

b. Outside standard metropolitan statistical areas. The emission standards specified for new equipment in chapter 4,T.IV of these rules shall apply, except as provided in 3.2(136B)T.IV, to all existing equipment located in the state outside any standard metropolitan statistical area of Iowa as listed in 2.1(3), below, within twelve months after the effective date of these rules.

If compliance with said emission standards cannot be attained within twelve months after the effective date of these rules, the person responsible for the existing equipment shall, within that twelve-month period, submit to the technical secretary a letter of intent, as described in 3.3(136B)T.IV of these rules, to file an air contaminant reduction program, as described in 3.4(136B)T.IV.

2.1(3) Standard metropolitan statistical areas. The presently defined standard metropolitan statistical areas of Iowa are listed in Table I.

TABLE I

STANDARD METROPOLITAN STATISTICAL AREAS OF IOWA

SMSA	IOWA COUNTIES INCLUDED
Cedar Rapids	Linn
Council Bluffs—Omaha	Pottawattamie
Davenport—Rock Island—Moline	Scott
Des Moines	Polk
Dubuque	Dubuque
Sioux City	Woodbury
Waterloo	Black Hawk

2.1(4) Emissions inventory. The person responsible for equipment as defined herein shall provide information on fuel use, materials processed, air contaminants emitted, estimated rate of emissions, periods of emission, or other air pollution information to the technical secretary upon his written request for use in compiling and maintaining an emissions inventory for evaluation of the air pollution situation in the state and its various parts. The information requested shall be submitted on forms supplied by the department. Any publication of such data shall be in a manner that does not divulge or reveal the identity of the installation or its owner.

These rules are intended to implement section 136B.4(3, 5) of the Code.

[Filed August 24, 1970]

CHAPTER 3

CONTROLLING POLLUTION

3.1(136B)T.IV Permits.

3.1(1) Permit required. Each person planning to construct, install, reconstruct, or alter any equipment as defined in 1.2(15)T.IV, or related control equipment, as defined in 1.2(11)T.IV, shall obtain a permit for the proposed equipment or related control equipment from the department, prior to the initiation of construction, installation, or alteration. Said permit will not be required if the alterations to the equipment will not change the emissions from that equipment.

a. Application for permit. Each application for a permit shall be submitted to the department on the form "Application for a

Permit to Install or Alter Equipment or Control Equipment". Plans and specifications relating to the proposed equipment shall be submitted with the application for a permit.

b. Preparation of plans. All plans and specifications for equipment and related control equipment, as defined herein, shall be prepared by or under the direct supervision of an engineer in conformance with chapter 114 of the Code.

c. Information required. The plans and specifications submitted shall include the following information:

- (1) The equipment or control equipment covered by the application;
- (2) The plot plan, including the distance and height for nearby buildings, and location and elevation of the emission points;
- (3) The composition of the effluent stream, both before and after any control equipment with estimates of emission rates, concentration, volume, and temperature;
- (4) The physical and chemical characteristics of the air contaminants;
- (5) Any tests to be made of the completed installation by the owner;
- (6) The sampling holes, scaffolding, power sources for operation of appropriate sampling instruments, and pertinent allied facilities for making tests to ascertain compliance; and
- (7) Any additional information as is deemed necessary by the department to determine compliance with these rules.

3.1(2) Processing of applications for permits. The department shall notify the applicant in writing of the issuance or denial of a permit as soon as practicable, at least within sixty days. When this schedule would cause undue hardship to an applicant, or materially handicap this need for proceeding promptly with the proposed installation, modification, or location, a request for priority consideration and the justification therefor shall be submitted to the department.

a. Issuing of permit. A permit shall be issued when the department concludes that the plans and specifications represent equipment which should comply with the requirements specified in these rules. A permit may be issued subject to conditions which shall be specified in writing.

- (1) Each permit shall specify the date on which it becomes void if work on the installation for which it was issued has not been initiated by that date.
- (2) Such permit is not transferable from one location to another, or from one piece of equipment to another.
- (3) If changes are proposed in the plans and specifications after a permit has been issued, a supplemental permit incorporating such changes shall be obtained.
- (4) Each permit shall require the department to be notified at least ten days before the equipment or control equipment involved is placed in operation.

b. Denial of permit. When an application for a permit is denied, the applicant shall be notified in writing of the reasons therefor. Such a denial shall be without prejudice to the right of the applicant for filing a further application after revisions are made to meet the objections specified as reasons for the denial.

3.1(3) Exemptions from permit requirements. The provisions of this rule shall not apply to the following items:

- a.* Fuel burning equipment for indirect heating and reheating furnaces using natural or liquefied petroleum gas exclusively, with a capacity of less than fifty million BTU per hour input.
- b.* Fuel burning equipment for indirect heating with a capacity less than one million BTU per hour input when burning coal or oil.
- c.* Mobile internal combustion and jet engines, marine installations and locomotives.
- d.* Equipment used on farms and ranches for agricultural purposes, except equipment as listed in 4.4(7)T.IV.

3.2(136B)T.IV Variances.

3.2(1) Application for variances. A person may make application for a variance from applicable emission standards specified in chapter 4,T.IV, or other provisions specified.

a. Contents. Each application for a variance shall be submitted to the technical secretary, stating the following:

- (1) The name, address, and telephone number of the person submitting the application or, if such person is a legal entity, the name and address of the individual authorized to accept service of process on its behalf and the name of the person in charge of the premises where the pertinent activities are conducted.
- (2) The type of business or activity involved.
- (3) The nature of the operation or process involved; including information on the air contaminants emitted, the chemical and physical properties of such emissions, and the estimated amount and rate of discharge of such emissions.
- (4) The exact location of the operation or process involved.
- (5) The reason or reasons for considering that compliance with the provisions specified in these rules will produce serious hardship without equal or greater benefits to the public, and the reasons why no other reasonable method can be used for such operations without resulting in a hazard to health or property.

(6) Each application shall bear the signature of the person making the application, following an affirmation that all statements are true and correct.

b. Variance extension. The request for extension of a variance shall be accompanied by one of the following applicable items;

- (1) A letter of intent as specified in 3.3(136B)T.IV.

(2) An emission reduction program as specified in 3.4(136B)T.IV.

3.2(2) Processing of applications. Each application for a variance and its supporting material shall be reviewed and an investigation of the facilities shall be made by the department, for evaluation of whether or not the emissions involved will produce the following effects.

a. Endanger human health. Endanger or tend to endanger the health of persons residing in or otherwise occupying the area affected by said emissions.

b. Create safety hazards. Create or tend to create safety hazards, such as (but not limited to) interference with traffic due to reduced visibility.

c. Damage to livestock or plant life. Damage or tend to damage any livestock harbored on, or any plant life on, property that is affected by said emissions and under other ownership.

d. Damage property. Damage or tend to damage any property on land that is affected by said emissions and under other ownership.

3.2(3) Recommendation for action. Upon completion of its investigation, the department shall submit the findings and a recommendation for appropriate action to the commission.

a. Granting of variance. The commission shall grant a variance when it concludes that such action is appropriate. The variance may be granted subject to conditions specified by the commission. The commission shall specify such time intervals as are considered appropriate for submission of reports on the progress attained in the emission reduction program.

b. Denial of variance. The commission shall deny a variance when it concludes that such action is appropriate. A denial shall be without prejudice of the right of the applicant to request a review hearing before the commission.

3.3(136B)T.IV Letter of intent.

3.3(1) Contents. A letter of intent to file an emission reduction program submitted pursuant to these rules shall include information on the following items pertaining to each source operation:

a. Raw materials. The quantity and type of raw materials processed.

b. Emissions. An estimate of the quantity and type of emissions to the atmosphere.

c. Emission sources. A listing of those source operations which are considered major sources of air contaminant emissions.

d. Control equipment. A listing of the existing pollution control devices, and an estimate of their efficiency.

e. Anticipated problems. Comments regarding particular problems anticipated in reducing emissions.

f. Emission reduction program submission date. The date when a detailed air contaminant emission reduction program pertain-

ing to each source operation will be submitted to the department. Such date shall not be later than six months after filing the letter of intent.

g. Additional information. Such additional information as may be required by the commission.

3.4(136B)T.IV Emission reduction program.

3.4(1) Contents. An air contaminant emission reduction program submitted to the department pursuant to these rules shall include a schedule for the installation of pollution control devices, or the replacement or alteration of specified facilities in such a way that emissions of air contaminants are reduced to comply with the emission standards specified in chapter 4,T.IV.

3.4(2) Review. The department shall review all programs submitted, and shall make recommendations to the commission with respect to whether these programs are adequate and reasonable.

a. Commission action. Upon receiving the recommendation of the department, the commission may approve or disapprove such programs.

(1) If an approved program is being implemented as scheduled, the person involved shall not be considered to be in violation of these rules.

(2) If the department recommends disapproval of a program, the disapproval shall be without prejudice to the right of the applicant to request a review hearing before the commission, and the applicant shall have a period of thirty days from date of notification by the commission in which to request a review hearing.

3.4(3) Reports. Each person responsible for an approved program shall make periodic written progress reports to the department, as specified by the department. The department shall make periodic reports to the commission on emission reduction programs submitted, and on the recommendations related to such programs.

These rules are intended to implement section 136B.4(3, 5) of the Code.

[Filed August 24, 1970]

CHAPTER 4

EMISSION STANDARDS FOR CONTAMINANTS

4.1(136B)T.IV Emission standards.

4.1(1) Application. Compliance with emission standards specified in this chapter shall be in accordance with chapter 2,T.IV. The following standards shall be considered as operating or performance standards, rather than design standards.

4.2(136B)T.IV Open burning.

4.2(1) Refuse. No person shall allow, cause, or permit open burning, such as but not limited to refuse, including trade wastes, except as provided in 4.2(3)T.IV and 4.2(4)T.IV.

4.2(2) Salvage by burning. No person shall conduct a salvage operation by open burning, except as provided in 4.2(3)T.IV.

4.2(3) Variances. Any person wishing to engage in the open burning of trade wastes, or in a salvage operation by open burning, may make application for a variance as specified in 3.2(1)T.IV.

4.2(4) Exemptions. The conditions listed below are exempted from these rules.

a. Cooking of food. Open fires used only for the cooking of food for human consumption, or for recreational purposes, except for the premises of permanent installations.

b. Premise fires. Backyard burning, not including garbage, at dwellings of four-family units or less. The adoption of more restrictive ordinances or regulations of a governing body of the political subdivision relating to control of backyard burning shall not be precluded by these rules. Unless otherwise provided by ordinance or regulation, fires for the open burning of plant material grown on the premises or deposited thereon by the elements shall be permitted.

c. Diseased trees. The burning of diseased trees. However, when the burning of diseased trees causes air pollution, the commission may take appropriate action to secure relocation of the burning operations.

d. Disaster rubbish. The open burning of rubbish produced during community disas-

ters in cases where an officially declared emergency condition exists.

e. Flare stacks. Flare stacks for the combustion of waste gases, providing they meet the requirements of 4.3(3)T.IV.

f. Training fires. Fires set for the purpose of bona fide instruction and training of public or industrial employees in the methods of fighting fires.

g. Clearing and grubbing rubbish. The open burning of combustible materials produced in clearing, grubbing, and construction operations, provided that such burning shall be limited to areas located at least one-fourth mile from any inhabited building.

4.3(136B)T.IV Specific contaminants.

4.3(1) General. The emission standards contained in this rule shall apply to each source operation unless a specific emission standard for the process involved is prescribed elsewhere in this chapter, in which case the specific standard shall apply.

4.3(2) Particulate matter. No person shall cause or allow the emission of particulate matter from any source in excess of the emission standards specified in this chapter, except as provided in chapter 5,T.IV.

a. Process weight rate. The emission of particulate matter from any process shall not exceed the amount determined from Table II, except as provided in 3.2(136B), 4.4(136B), and chapter 5,T.IV.

TABLE II
ALLOWABLE RATE OF EMISSION BASED ON
PROCESS WEIGHT RATE*

Process Weight Rate		Emission Rate	Process Weight Rate		Emission Rate
Lb/Hr	Tons/Hr	Lb/Hr	Lb/Hr	Tons/Hr	Lb/Hr
100	0.05	0.55	16,000	8.00	16.5
200	0.10	0.88	18,000	9.00	17.9
400	0.20	1.40	20,000	10.00	19.2
600	0.30	1.83	30,000	15.00	25.2
800	0.40	2.22	40,000	20.00	30.5
1,000	0.50	2.58	50,000	25.00	35.4
1,500	0.75	3.38	60,000	30.00	40.0
2,000	1.00	4.10	70,000	35.00	41.3
2,500	1.25	4.76	80,000	40.00	42.5
3,000	1.50	5.38	90,000	45.00	43.6
3,500	1.75	5.96	100,000	50.00	44.6
4,000	2.00	6.52	120,000	60.00	46.3
5,000	2.50	7.58	140,000	70.00	47.8
6,000	3.00	8.56	160,000	80.00	49.0
7,000	3.50	9.49	200,000	100.00	51.2
8,000	4.00	10.4	1,000,000	500.00	69.0
9,000	4.50	11.2	2,000,000	1,000.00	77.6
10,000	5.00	12.0	6,000,000	3,000.00	92.7
12,000	6.00	13.6			

*Interpolation of the data in this table for process weight rates up to 60,000 lb/hr shall be accomplished by the use of the equation

$$E = 4.10 P^{0.67},$$

and interpolation and extrapolation of the data

for process weight rates in excess of 60,000 lb/hr shall be accomplished by use of the equation

$$E = 55.0 P^{0.11-40},$$

where E = rate of emission in lb/hr, and
P = process weight in tons/hr

b. Combustion for indirect heating. Emissions of particulate matter from the combustion of fuel for indirect heating or for power generation shall be limited by the ASME Standard APS-1, Second Edition, November, 1968, "Recommended Guide for the Control of Dust Emission—Combustion for Indirect Heat Exchangers". For the purpose of this paragraph, the allowable emissions shall be calculated from equation (15) in that standard, with $C_{0max} = 50$ micrograms per cubic meter. Allowable emissions from a single stack may be estimated from Figure 1. The maximum ground level dust concentrations designated are above the background level. For plants with 4,000 million BTU/hour input or more, the "a" factor shall be 1.0. In plants with less than 4,000 million BTU/hour input, appropriate "a" factors, less than 1.0, shall be applied. Pertinent correction factors, as speci-

fied in the standard, shall be applied for installations with multiple stacks.

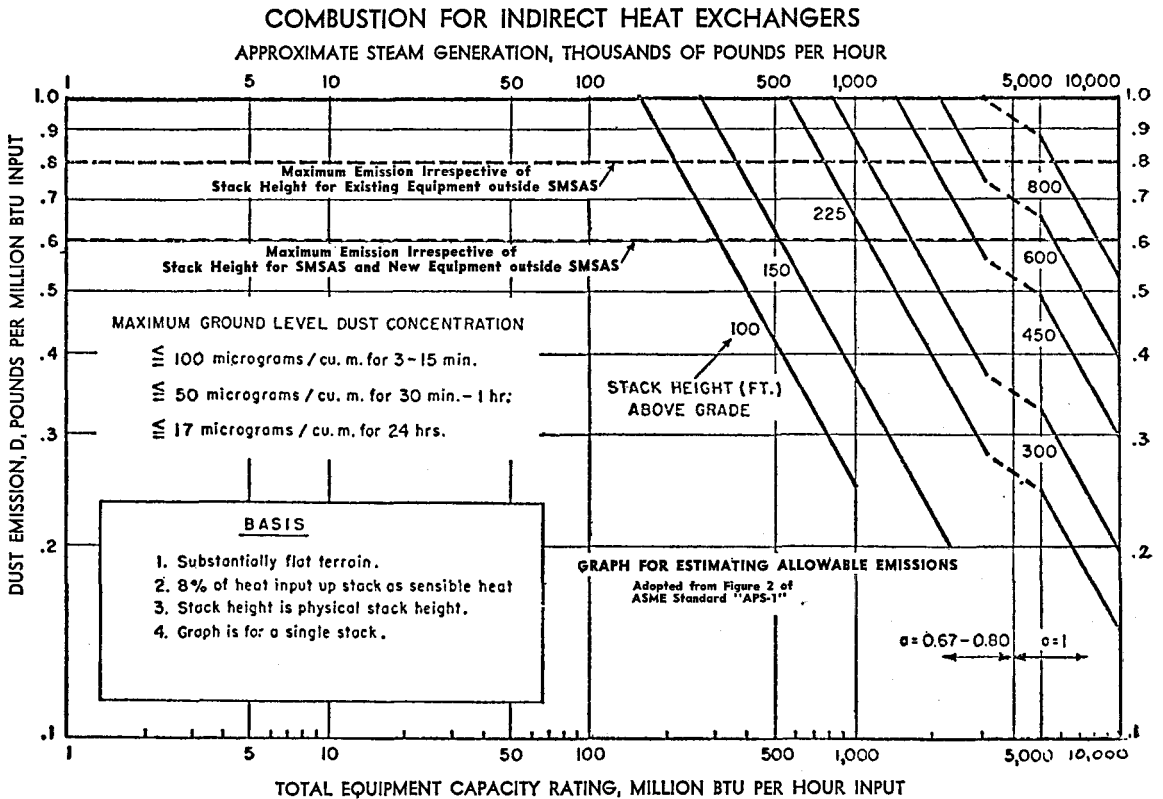
(1) Outside any standard metropolitan statistical area, the maximum allowable emissions from each stack serving existing equipment, irrespective of height, shall be 0.8 pounds of particulates per million BTU input.

(2) Inside any standard metropolitan statistical area, the maximum allowable emission from each stack, irrespective of height, shall be 0.6 pounds of particulates per million BTU input.

(3) In new equipment, the maximum allowable emissions from each stack, irrespective of height or location, shall be 0.6 pounds of particulates per million BTU input.

(4) Measurements of emissions from a particulate source will be made in accordance with the provisions of chapter 7,T.IV.

FIGURE 1



4.3(3) Smoke. No person shall cause, suffer, or allow the emission of smoke of a density equal to or darker than Number 2 of the Ringelmann Chart into the atmosphere from any fuel-burning equipment, internal combustion engine, premise fire, open fire, or stack, except as provided in chapter 5,T.IV.

4.4(136B)T.IV Specific processes.

4.4(1) General. The emission standards specified in this rule shall apply, and those specified in 4.3(136B)T.IV shall not apply, to

each process of the types listed in the following subrules, except as provided in exception below.

Exception. Whenever the commission determines that a process complying with the emission standard prescribed in this rule is causing or will cause air pollution in a specific area of the state, the specific emission standard may be suspended and compliance with the provisions of 4.3(136B)T.IV may be required in such instances.

4.4(2) Asphalt batching plants. No person shall cause, allow, or permit the operation of an asphalt batching plant in a manner such that the particulate matter discharged to the atmosphere exceeds 0.15 grain per standard cubic foot of exhaust gas.

4.4(3) Cement kilns. Cement kilns shall be equipped with air pollution control devices to reduce the particulate matter in the gas discharged to the atmosphere to no more than 0.3 percent of the particulate matter entering the air pollution control device. Regardless of the degree of efficiency of the air pollution control device, particulate matter discharged from such kilns shall not exceed 0.1 grain per standard cubic foot of exhaust gas.

4.4(4) Cupolas for metallurgical melting. The emissions of particulate matter from all new foundry cupolas, and from all existing foundry cupolas with a process weight rate in excess of twenty thousand pounds per hour, shall not exceed the amount determined from Table II of these rules, except as provided in chapter 5,T.IV.

a. Existing small cupolas. The emissions of particulate matter from all existing foundry cupolas with a process weight rate less than or equal to twenty thousand pounds per hour shall not exceed the amount determined from Table III of these rules, except as provided in chapter 5,T.IV.

TABLE III
ALLOWABLE EMISSIONS FROM
EXISTING SMALL FOUNDRY CUPOLAS

Process weight rate (lb/hr)	Allowable emission (lb/hr)
1,000	3.05
2,000	4.70
3,000	6.35
4,000	8.00
5,000	9.58
6,000	11.30
7,000	12.90
8,000	14.30
9,000	15.50
10,000	16.65
12,000	18.70
16,000	21.60
18,000	23.40
20,000	25.10

4.4(5) Electric furnaces for metallurgical melting. The emissions of particulate matter to the atmosphere from electric furnaces used for metallurgical melting shall not exceed 0.1 grain per standard cubic foot of exhaust gas.

4.4(6) Feed grinding and mixing plants. No person shall cause, allow, or permit the operation of equipment at a permanent location for the handling, drying, grinding, mixing, or processing of grain, or blending of grain products, for use as animal food or food supplement such that the particulate matter discharged to the atmosphere exceeds 0.1 grain per standard cubic foot of exhaust gas.

4.4(7) Grain processing plants. No person shall cause, allow, or permit the operation of equipment for the handling, drying, grinding, mixing, or processing of grain, or blending of grain products, for use as food for human consumption such that the particulate matter discharged to the atmosphere exceeds 0.1 grain per standard cubic foot of exhaust gas.

4.4(8) Lime kilns. No person shall cause, allow, or permit the operation of a kiln for the processing of limestone such that the particulate matter in the gas discharged to the atmosphere exceeds 0.1 grain per standard cubic foot of exhaust gas.

4.4(9) Meat smokehouses. No person shall cause, allow, or permit the operation of a meat smokehouse, or a group of meat smokehouses, which consume more than ten pounds of wood, sawdust, or other material per hour such that the particulate matter discharged to the atmosphere exceeds 0.2 grain per standard cubic foot of exhaust gas.

4.4(10) Phosphate processing plants. No person shall cause, allow, or permit the operation of equipment for the processing of phosphate ore, rock, or other phosphatic material including, but not limited to, phosphoric acid in a manner that the unit emissions of fluoride exceed 0.4 pound of fluoride per ton of phosphorous pentoxide or its equivalent, but not more than one hundred pounds per day.

a. Allowable emissions. The allowable total emission of fluoride shall be calculated by multiplying the unit emission specified above by the expressed design production capacity of the process equipment.

4.4(11) Portland cement concrete batching plants. No person shall cause, allow, or permit the operation of a portland cement concrete batching plant such that the particulate matter discharged to the atmosphere exceeds 0.1 grain per standard cubic foot of exhaust gas.

4.4(12) Incinerators. No person shall cause, allow, or permit the operation of an incinerator unless provided with appropriate control of emissions of particulate matter and of smoke.

a. Particulate matter. No person shall cause, allow, or permit the operation of an incinerator with a rated refuse burning capacity of one thousand or more pounds per hour in a manner such that the particulate matter discharged to the atmosphere exceeds 0.2 grain per standard cubic foot of exhaust gas adjusted to twelve percent carbon dioxide.

No person shall cause, allow, or permit the operation of an incinerator with a rated refuse burning capacity of less than one thousand pounds per hour in a manner such that the particulate matter discharged to the atmosphere exceeds 0.35 grain per standard cubic foot of exhaust gas adjusted to twelve percent carbon dioxide.

b. Smoke. No person shall cause, allow, or permit the operation of an incinerator in a manner such that it emits or produces smoke which has an appearance, density, or shade darker than Number 2 on the Ringelmann Chart; except that smoke which has an appearance, density or shade darker than Number 2 on the Ringelmann Chart may be emitted for a period or periods aggregated not more than three minutes in any sixty-minute period during an operation breakdown or during the cleaning of air pollution control equipment.

These rules are intended to implement section 136B.4(3, 5) of the Code.

[Filed August 24, 1970]

CHAPTER 5 EXCEPTIONS

5.1(136B)T.IV Exceptions due to maintenance or breakdowns.

5.1(1) *Maintenance of power or heating plant.* When building a new fire, when manually cleaning a fire, or when blowing tubes and flues in a power plant, heating plant, or domestic heating plant, smoke may be emitted of an appearance, density, or shade equal to or darker than Number 2 of the Ringelmann Chart for a period or periods aggregating not more than six minutes in any sixty-minute period.

5.1(2) *Cleaning of pollution control equipment.* When cleaning pollution control equipment which does not require a shutdown of equipment, particulate matter may be emitted in excess of the limitations specified in chapter 4,T.IV for a period or periods aggregating not more than six minutes in any sixty-minute period.

5.1(3) *Repair or maintenance.* Abnormal conditions, breakdown, or emergency maintenance of pollution control equipment or related operating equipment, which causes emissions in excess of the limitations specified in chapter 4,T.IV shall not be deemed violations provided that the provisions specified in "a" and "b," below, are followed.

a. Report of conditions. The person responsible for the equipment causing such emissions shall notify the technical secretary within seven days of the occurrence of each such incident.

b. Action to correct condition. The person responsible for such equipment causing such emissions shall, with all practicable speed, initiate and complete appropriate reasonable action (1) to correct the conditions causing emissions to exceed said limits, (2) to reduce the frequency of occurrence of such conditions, (3) to minimize the amount by which said limits are exceeded, and (4) to reduce the length of time for which said limits are exceeded; and shall submit to the technical secretary, at his request, a full report of such occurrence, including a statement of all known causes, and

of the scheduling and the nature of the actions to be taken pursuant to these rules.

These rules are intended to implement section 136B.4(3, 5) of the Code.

[Filed August 24, 1970]

CHAPTER 6 CIRCUMVENTION OF RULES AND REGULATIONS

6.1(136B)T.IV Circumvention of rules and regulations.

6.1(1) *Circumvention prohibited.* No person shall build, erect, install, or use any article, machine, equipment, or other contrivance which, without resulting in a reduction in the total amount of air contaminants released to the atmosphere, reduces or conceals an emission which would otherwise constitute violation of these rules.

These rules are intended to implement section 136B.4(3, 5) of the Code.

[Filed August 24, 1970]

CHAPTER 7 MEASUREMENT OF EMISSIONS

7.1(136B)T.IV Testing and sampling of new and existing equipment.

7.1(1) *Tests by owner.* The owner of new equipment, or his authorized agent, shall notify the technical secretary in writing, not less than ten days before a test is to be made of an installation. Such notice shall include the time, the place, and the name of the person who will conduct the tests to determine if such equipment is meeting the applicable emission standards specified in chapter 4,T.IV. A representative of the department shall be permitted to witness the tests. Results of the tests shall be submitted in writing to the technical secretary.

7.1(2) *Tests by department.* Representatives of the department may conduct separate and additional air contaminant emission tests of an installation on behalf of the state and at the expense of the state. Sampling holes, safe scaffolding, and pertinent allied facilities, but not instruments or sensing devices, as needed shall be requested in writing by the technical secretary, and shall be provided by and at the expense of the owner of the installation at such points as specified in the request. The owner shall provide a suitable power source to the point or points of testing so that sampling instruments can be operated as required. Analytical results shall be furnished to the owner.

7.1(3) *Methods and procedures.* Stack sampling and analytical determinations to evaluate compliance with these rules shall be made in accordance with methods and procedures acceptable to the commission.

These rules are intended to implement section 136B.4(3, 5) of the Code.

[Filed August 24, 1970]

CHAPTER 8
MISCELLANEOUS

8.1(136B)T.IV Scope—conformance. Nothing in these rules is intended to permit any practice which is in violation of any statute, ordinance, or regulation.

These rules are intended to implement section 136B.4(3, 5) of the Code.

[Filed August 24, 1970]

TITLE V
WATER POLLUTION CONTROL*

TITLE VI
Reserved for future use

TITLE VII
Reserved for future use

TITLE VIII
Reserved for future use

TITLE IX
HOSPITALS AND RELATED
INSTITUTIONS

CHAPTER 1
HOSPITALS

1.1(135B)T.IX Definitions.

1.1(1) Hospital. A hospital shall mean a place which is devoted primarily to the maintenance and operation of facilities for the diagnosis, treatment, or care over a period exceeding twenty-four hours of two or more non-related individuals suffering from illness, injury, or deformity, or a place which is devoted primarily to the rendering over a period exceeding twenty-four hours of obstetrical or other medical or nursing care for two or more nonrelated individuals, or any institution, place, building or agency in which any accommodation is primarily maintained, furnished, or offered for the care over a period exceeding twenty-four hours of two or more nonrelated aged or infirm persons requiring or receiving chronic or convalescent care and shall include sanatoriums, rest homes, nursing homes, boarding homes, or other related institutions within the meaning of this Act. Provided, however, nothing in this Act shall apply to hotels or other similar places that furnish only food and lodging, or either, to their guests. "Hospital" shall include, in any event, any facilities wholly or partially constructed or to be constructed with federal financial assistance pursuant to Public Law 725-79th Congress, approved August 13, 1946.

1.1(2) Medical staff. The medical staff of a hospital shall be defined as an organized body composed of all licensed physicians who are appointed to the staff of a hospital by its governing board.

1.1(3) Registered nurse. A registered nurse shall be a person from an accredited school of nursing and registered in the state of Iowa.

*See also WATER POLLUTION CONTROL COMMISSION.

1.2(135B)T.IX Classification. Classification of hospitals and compliance with:

1.2(1) Classification. For the purpose of administering the hospital licensing law, all institutions subject to licensure shall be classified in the following manner:

a. General hospital. Any institution providing hospital care, including general medical, surgical, or maternity care and treatment.

b. Specialized hospital or sanatorium. Any institution providing specialized care and treatment, e.g., tuberculosis, pediatrics, mental diseases, orthopedics, etc.

1.2(2) Compliance requirements for each classification.

a. General hospitals. Any hospital classified as a general hospital shall comply with all of the general regulations for hospitals, and they shall comply with regulations pertaining to specialized services, insofar as such specialized services are provided in the hospital.

b. Specialized hospitals and sanatoriums. Specialized hospitals and sanatoriums shall comply with all general regulations for hospitals and all regulations pertaining to such specialized services as are provided by the hospital, sanatorium, or institution.

1.3(135B)T.IX License.

1.3(1) Separate license required. Separate license shall be required for each hospital even though more than one is operated under the same management. Separate license is not required for separate buildings on the same grounds.

1.3(2) License not required. The following are not deemed to come within the meaning of the hospital licensing law and shall not be required to obtain a license thereunder:

a. Any institution for well children, day nursery and child care center, foster boarding homes or houses and homes for handicapped children. However, such institutions as have a dual function, including nursing and medical care, and care of the sick are required to be licensed.

b. Homes, houses, or institutions for aged persons which limit their functions to board and room and provide no medical or nursing care and house no bedridden persons.

c. Dispensary or first-aid stations maintained for the care of employees, students, customers, members of any commercial or industrial plant, educational institution or convent.

1.3(3) Posting of license. The license shall be conspicuously posted on the premises.

1.4(135B)T.IX General regulations for the administration of hospitals.

1.4(1) Governing board. The governing board, or the owner, or the person or persons designated by the owner as the governing authority shall be the supreme authority in the hospital, responsible for the management, control, and appointment of the medical staff and functioning of the institution subject to the

laws of the state of Iowa. The governing board shall appoint a medical staff which shall consist of one or more licensed physicians who shall be responsible to the governing authority for the clinical and scientific work of the hospital.

1.4(2) Medical staff.

a. A roster of medical staff members shall be kept, and a copy of said roster shall be reported annually to the state department of health.

b. All hospitals shall have one or more licensed physicians designated for emergency call service at all times.

1.4(3) Nursing staff.

a. The department of nursing shall be organized to provide complete and efficient nursing care to each patient, and the authority, responsibility and function of each nurse shall be clearly defined.

b. All nurses employed in a hospital who practice nursing as a graduate or registered nurse shall be legally licensed in Iowa to practice their profession, or shall obtain such license at the next examination.

c. There shall be a superintendent or director of nursing service who shall be a competent well-trained person with administrative and executive ability, and shall be a graduate nurse and registered in the state of Iowa, or shall obtain such license at the next examination or by reciprocity.

d. Supervisors and head nurses shall have had preparation courses and experience commensurate with the responsibility of the specific assignment.

e. Applications for employment as a registered nurse shall be submitted, in writing, to the person responsible for nursing personnel, and each application shall contain accurate information as to the education, training, experience, personal background of each applicant. A complete physical examination, including indicated X-ray and laboratory examinations, shall be required at the time of employment and at regular intervals thereafter.

f. All nonprofessional workers performing patient-care service shall be under the supervision of a registered nurse. Their duties shall be defined and they shall be instructed in all duties assigned to them. At the time of employment, a complete physical examination, including X-ray of chest and laboratory examinations, shall be required, and at regular intervals thereafter.

g. Nursing care shall be that amount of professional and nonprofessional care essential to provide proper treatment for the well-being and the recovery of the patient.

h. Policies, procedures, rules, and regulations with which each employee shall be familiar shall be established for the administrative and technical guidance of the personnel of the hospital.

i. Personnel absent from duty because of any disease in a communicable stage shall be excluded from duty in the hospital until exam-

ined by a physician designated for that purpose.

j. There shall be at least one registered nurse on duty or on call at all times.

1.5(135B) T.IX Records.

1.5(1) Medical records. Accurate and complete medical records shall be written for all patients and signed by the attending physician; these shall be filed and stored in an accessible manner in the hospital and in accordance with the statute of limitations.

1.5(2) Hospital records.

a. *Admission records.* A register of all admissions to the hospital shall be kept in accordance with Iowa law.

b. *Death records.* A register of all deaths in the hospital shall be kept, including all information required on a standard certificate.

c. *Birth records.* A register of all births in the hospital shall be kept, including all information required on a standard certificate.

d. *Narcotic records.* Narcotic records shall be maintained in accordance with the laws and regulations pertaining thereto.

1.6(135B) T.IX Reports to the state department of health.

1.6(1) Annual reports. Annual report shall be filed with the state department of health within three months after termination of each fiscal year on forms furnished by same. The reports shall include: Total number of admissions during year, total number discharged during year, total number of deaths during year, bed capacity, average percentage of bed occupancy, total patient days, average length of stay, number of major operations, number of minor operations, number of autopsies, complete maternity statistics as required by the state department of health, and a report of any changes in the physical plant within the past year.

1.6(2) Communicable disease report. The hospital or institution shall co-operate with the attending physician in the reporting of all reportable diseases occurring or being treated within the hospital or institution to the proper authorities, as provided by the laws of Iowa and the rules of the Iowa state department of health.

1.7(135B) T.IX Plans and specifications for new hospital construction.

1.7(1) Hospitals shall be licensed by the state department of health, when the following requirements have been fulfilled:

a. In locating an institution, the local zoning restrictions shall be obtained from the local civil authorities.

b. New hospitals shall be so located that they are free from undue noises from railroads, freight yards, main traffic arteries, schools and children's playgrounds.

c. The site shall be free from smoke, foul odors, and dust from nearby industrial plants.

d. Hospitals must be served by good roads, kept passable at all times of the year.

1.7(2) When construction is contemplated, either for new buildings, additions to existing buildings or material alterations to existing buildings, the preliminary plan or sketch shall be submitted in duplicate to the state department of health for review and approval, preferably before the preparation of working drawings in accordance with chapter 135B of the Code.

a. Complete construction plans and specifications for the building or remodeling hereafter shall be submitted to the state department of health in triplicate for review and approval before construction begins, and shall be in accordance with all the applicable laws, rules and local municipal codes in accordance with chapter 135B of the Code.

b. Plans and specifications for any new hospital additions to an existing hospital, or structural change of an existing hospital, shall show that every consideration has been given to features of design that are necessary to insure efficient care of the patient and protection of patients from any material or human source of infection, such as the segregation of various hospital departments, the room arrangements in these departments, and the sanitary features of the heating, lighting, ventilating, and plumbing facilities.

c. The plans and specifications for the design and construction of a new hospital, or addition to an existing hospital, or major structural change in an existing hospital, shall be in accordance with all the applicable laws, rules and local municipal codes; the sanitary facilities, including the system of water supply, plumbing, sewerage, garbage, refuse disposal, and equipment shall be selected, constructed, and installed in accordance with existing laws and rules pertaining to environmental sanitation; and features of design and arrangement shall be in substantial accordance with recognized standards for hospitals.

d. Plans and revisions shall be certified by an engineer or architect licensed to practice in the state of Iowa or eligible for licensure in Iowa.

1.8(135B)T.IX Design, equipment, and maintenance of the physical plant.

1.8(1) The hospital structure and its component parts and facilities shall be kept in good repair and maintained with consideration for the safety and comfort of the patient.

1.8(2) Walls, floors, and ceilings shall be constructed of materials and maintained to permit frequent cleaning or disinfection necessary for the safe care of patients.

1.8(3) Beds must be spaced so as to provide adequate room for nursing procedures and to prevent the transmission of infection. The following allowances of floor space are minimum:

Single patient rooms—100 sq. ft.

Multiple rooms or wards—80 sq. ft. per bed

Pediatric beds or cribs—40 sq. ft. per bed

Full-term nursing bassinets—20 sq. ft. per bassinet.

1.8(4) Doors to patients' rooms shall be wide enough to permit the removal of any occupied bed used in the rooms. Where it is not practical to widen the corridors and the doors of the individual rooms, the state fire marshal may accept in lieu thereof, mattresses which have been equipped with two straps on each side and one on each end. These straps, which are to be used as hand grips, shall be substantially fastened to the mattress and of sufficient strength so that the patients may be easily removed from the beds and transported to the outside.

1.8(5) Vision panels shall be required in all double acting doors.

1.8(6) Each patient's room shall have at least one window opening to the outside to permit ventilation and a source of natural light.

1.8(7) No room shall be used for the bed care of patients which can only be reached by passing through another patient's room.

1.8(8) There shall be space and facilities for the proper storage of all drugs, supplies, linen, and equipment.

1.8(9) Every room, including storerooms, hallways, and others, shall have sufficient artificial light to make all parts clearly visible and to permit efficient performance of all necessary work.

1.8(10) All utility rooms shall be provided with lighting and ventilation and necessary plumbing.

1.8(11) Safe emergency lighting facilities shall be provided and distributed, so as to be readily available to personnel on duty at all times.

1.8(12) An adequate number of stairways shall be provided with handrails and shall be of size and design permitting the removal of patients on a stretcher.

1.8(13) There shall be more than one means of egress leading to the outside of the building from each floor. Egresses are to be located as near to opposite ends of the building as practical.

1.9(135B)T.IX Heating and ventilating.

1.9(1) The heating plant shall be adequate to maintain a cold weather temperature of 70° F. throughout the building and a higher temperature where required.

1.9(2) Kitchens, bathrooms, and service rooms shall be so located and ventilated by window or mechanical means to prevent offensive odors from entering patients' rooms and the public halls.

1.10(135B)T.IX Water supply.

1.10(1) The water shall be obtained from a municipal water supply or from a private supply system, the location, construction, and operation of which is acceptable to the state department of health.

1.10(2) The water shall be distributed to conveniently located taps and fixtures in the building.

1.10(3) Hot water shall be available at sinks and lavatories at all times.

1.11(135B)T.IX Sewage disposal.

1.11(1) Sewage shall be discharged into a municipal sewerage system where such a system is available, otherwise the sewage shall be collected, treated and disposed of in an independent sewerage system which complies with standards of design and operation approved by the state department of health.

1.12(135B)T.IX Plumbing.

1.12(1) All plumbing shall be installed and maintained in accordance with the Iowa state plumbing code.

1.12(2) Adequate toilet, lavatory, and bath facilities shall be provided on each floor where patients are cared for in the institution.

1.12(3) Cross connections, back siphonage defects, and, particularly, water operated suction apparatus are prohibited.

1.13(135B)T.IX Sterilizing equipment.

1.13(1) Adequate facilities shall be provided for the sterilization of utensils, instruments, supplies, and water in accordance with the needs of the patients treated. The facilities shall be carefully maintained and routinely checked to assure continuous efficiency.

1.13(2) Adequate facilities with proper safeguards shall be provided for the preparation, storage, and dispensing of sterile equipment and supplies.

1.14(135B)T.IX Anesthesia storage.

1.14(1) Hospitals using anesthetic gases, capable of exploding under certain conditions of concentration, humidity, etc., shall take all reasonable precautions to avoid explosion hazards in storage or in use.

1.15(135B)T.IX Screens.

1.15(1) Screens shall be provided for any outside or inside aperture which could transmit any insect vector carrying infectious material in jeopardy to the welfare and safety of patients. All screen doors shall be equipped with self-closing devices.

1.16(135B)T.IX Incineration.

1.16(1) Incineration facilities shall be provided for the disposal of infected dressings, surgical and obstetrical wastes and other similar materials.

1.17(135B)T.IX Laundry.

1.17(1) The hospital shall make provisions for the proper cleansing of linen and washable goods. Where linen is sent to an outside laundry, the hospital shall be responsible for the effectiveness of cleansing methods used and the proper care of contaminated linens.

1.18(135B)T.IX Hand-washing facilities.

1.18(1) There shall be hand-washing facilities throughout the institution, within or conveniently located with regard to every patient's room or patient-caring service. Hand-scrubbing sinks or lavatories, foot pedal preferred, shall be provided in operating, delivery, and labor rooms, nurseries, examining and treatment rooms, dietary facilities, toilet rooms, and rooms used for the isolation of patients. Hand-scrubbing sinks shall be designed to make it possible to wash the hands without break in technique. The use of a common towel is prohibited.

1.19(135B)T.IX Food service.

1.19(1) *Floors.* The floors of all rooms in which food or beverage is stored, prepared, or served, or in which utensils are washed shall be of such construction so as to be easily cleaned, shall be smooth, and shall be kept clean and in good repair. The floors shall be composed of such material as to constitute a minimal hazard when wet or greasy.

1.19(2) *Walls and ceilings.* Walls and ceilings of all rooms shall be kept clean and in good repair. All walls and ceilings of rooms in which food or beverage is stored or prepared shall be finished in light color. The walls of all rooms in which food or beverage is prepared or utensils are washed shall have a smooth, washable surface up to the level reached by splash or spray.

1.19(3) *Doors and windows.* When flies are prevalent, all openings into the outer air shall be effectively screened and doors shall be self-closing, unless other effective means are provided to prevent the entrance of flies.

1.19(4) *Lighting.* All rooms in which food or beverage is stored or prepared, or in which utensils are washed shall be well lighted.

1.19(5) *Ventilation.* All rooms in which food or beverage is stored, prepared, or served, or in which utensils are washed shall be well ventilated. A system of forced air ventilation shall be used in the cooking area.

1.19(6) *Toilet facilities.* Every hospital shall be provided with adequate and conveniently located toilet facilities for its employees engaged in food handling. Toilet rooms shall not open directly into any room in which food, beverage, or utensils are handled or stored. The doors of all toilet rooms shall be self-closing. Toilet rooms shall be kept in a clean condition, in good repair, and well lighted and ventilated. Hand-washing signs shall be posted in each toilet room used by employees.

1.19(7) *Water supply.* Running water under pressure shall be easily accessible to all rooms in which food is prepared or utensils washed.

1.19(8) *Lavatory facilities.* Adequate and convenient hand-washing facilities shall be provided within the kitchen area or adjacent to kitchen area, including hot and cold running water, soap, and approved sanitary tow-

els and shall be readily accessible to employees. The use of a common towel is prohibited.

1.19(9) Construction of utensils and equipment. All multiuse utensils, cases, counters, shelves, tables, refrigerating equipment, sinks and other equipment or utensils used in connection with the operation of the food service shall be so constructed as to be easily cleaned and shall be kept in good repair. Utensils containing or plated with cadmium or lead shall not be used, provided, that solder containing lead may be used for joining.

1.19(10) Cleaning and bactericidal treatment of utensils and equipment.

a. All equipment including cases, counters, shelves, tables, refrigerators, stoves, hoods, and sinks shall be kept clean and free from dust, dirt, insects, and other contaminating material. All cloths used by maids, chefs, and other employees shall be clean. Single-service containers shall be used only once.

b. All multiuse eating and drinking utensils shall be thoroughly cleaned and effectively subjected to an approved bactericidal process after each usage. All multiuse utensils used in the preparation or serving of food and beverage shall be thoroughly cleansed and effectively subjected to an approved bactericidal process immediately following the day's operation. Drying cloths, if used, shall be clean and shall be used for no other purpose.

c. No article, polish or other substance containing any cyanide preparation or other poisonous material shall be used for the cleansing or polishing of utensils.

1.19(11) Storage and handling of utensils and equipment. After bactericidal treatment utensils shall be stored in a clean, dry place protected from insects, dust, and other contamination; and shall be handled in such a manner as to prevent contamination as far as practicable. Single-service utensils shall be purchased only in sanitary container, shall be stored therein in a clean, dry place until used, and shall be handled in a sanitary manner.

1.19(12) Disposal of wastes. All wastes shall be properly disposed of, and all garbage and trash shall be kept in suitable receptacles in such manner as not to become a nuisance.

1.19(13) Refrigeration. All readily perishable food and beverage shall be kept at or below 40° F. except when being prepared or served. All refrigerators shall be provided with thermometers.

1.19(14) Wholesomeness of food and beverage. All food and beverage shall be clean, wholesome, free from spoilage, and prepared so as to be safe for human consumption. Milk and fluid milk products shall be served in the individual original containers in which they are received from the distributor or from a bulk container equipped with an approved dispensing device. This requirement shall not

apply to cream, which may be served from the original bottle or from a dispenser approved for such service.

1.19(15) Storage and serving of food and beverage. All food and beverage shall be so stored, and served as to be protected from dust, insects, vermin, depredation, and pollution by rodents, unnecessary handling, droplet infection, overhead leakage, and other contamination. Foods shall be properly cleaned before storage. All means necessary for the elimination of flies, roaches, and rodents shall be used.

1.19(16) Cleanliness of employees. All employees shall wear clean outer garments and shall keep their hands clean at all times while engaged in handling of food, beverage, utensils, or equipment. Employees shall not expectorate or use tobacco in any form in rooms in which food is prepared.

1.19(17) Miscellaneous. The premises of all hospitals shall be kept clean and free of litter or rubbish. None of the operations connected with the food service shall be conducted in any room used as living or sleeping quarters. Adequate lockers or dressing rooms shall be provided for employees' clothing and shall be kept clean. Soiled linens, coats, and aprons shall be kept in containers provided for this purpose.

1.19(18) Ice. All ice used in contact with food or beverage shall be safe in quality, meeting state department of health standards for drinking water. It shall be handled and dispensed in a sanitary manner. No ice used for human consumption shall be stored in proximity to an area where wastes are disposed.

1.19(19) Milk and milk products. There shall be a safe supply of milk, cream and milk products for human consumption. Where pasteurized or Grade A raw milk is not available, condensed, evaporated, or dried milk shall be used.

1.19(20) Food-handling employees.

a. *Health certificates.* The hospital or institution shall require a medical certificate, given by a reputable physician, for every person handling food in the hospital, stating as the result of a physical examination, and the indicated laboratory procedure that the employee is free from an infectious or communicable disease in a communicable stage, or a carrier of disease, and is physically and mentally able to perform his duties. Such certificate shall be renewed at least once yearly.

b. No person suffering from any infectious or contagious disease or who is a disease carrier shall be employed in the hospital.

1.19(21) Disposal of waste. Suitable facilities shall be provided for storage, collection and disposal of garbage at frequent intervals in a manner which does not create a nuisance, will not permit the transmission of contagious diseases, or provide a breeding place for flies.

1.20(135B)T.IX Dietary department of the hospital.

1.20(1) Dietitian. The dietary department should be under the supervision of a trained dietitian or a person skilled in the handling, preparation and serving of foods and the supervision and management of food handlers.

1.20(2) Dietary departments not supervised by a trained dietitian. In hospitals where a trained and qualified dietitian is not employed, the services of a trained dietitian or a nutritionist available to the community, or a nutrition consultant of the state department of health shall be obtained periodically to consult with the personnel of the dietary department on the storing, preparing, and serving of food and the planning of menus.

1.20(3) Food provided patients and employees. Food provided patients or employees shall fulfill all the requirements of a diet selected and prepared in accordance with accepted nutritional standards of the national research council. The duties of both the skilled and unskilled employees shall be assigned so that these requirements are fulfilled.

1.21(135B)T.IX Facilities and equipment for patient care. Hospital equipment shall be selected, maintained, and used in accordance with the needs of the patients.

1.21(1) Furnishings, supplies and equipment.

a. Bed. A hospital bed with suitable mattress, pillows and necessary coverings shall be provided for each patient. After the discharge of each patient, the bed and room furnishings shall be thoroughly cleansed.

b. Bedside furniture. There shall be a chair and bedside table for each patient, unless clinically contraindicated.

c. Linen. A supply of towels, wash cloths, bath blankets and all other linen which comes directly in contact with the patient shall be provided as needed for each individual patient. No such linen shall be interchangeable from one patient to another before being properly cleansed or laundered.

d. Individual equipment. Individual bedpans, wash basins and mouth wash cups shall be provided for each patient. This equipment shall be properly cleansed and stored. Individual thermometers shall be supplied and disinfected before each use.

1.21(2) Hot-water bags. Hot-water bags shall be of the proper temperature to protect against burning, and shall be covered before being placed in a bed. Any electrical heating appliance used for patient care shall be carefully checked periodically.

1.21(3) Restraints. Restraints shall be applied only when they are necessary to prevent injury to the patient or to others, and shall be used only when alternative measures are not sufficient to accomplish their purposes. There must be a written order signed by the attending physician approving the use of restraints

either at the time they are applied or as soon thereafter as possible. Careful consideration shall be given to the methods by which they can be speedily removed in case of fire or other emergency.

1.21(4) Signals. Means of signaling nurses shall be provided within easy reach of all patients confined to bed.

1.21(5) Screens. Screens or curtains shall be provided in wards or semiprivate rooms in order to secure privacy of each patient.

1.21(6) Storage space. There shall be satisfactory storage space for clothing, toilet articles, and other personal belongings of patients and all articles shall be marked or identified.

1.22(135B)T.IX Storage of medicines.

1.22(1) All medicines, poisons, and stimulants kept in a nursing service division shall be plainly labeled and stored in a specially designated medicine cabinet, closet or store-room, and made accessible only to authorized personnel. The cabinet for drugs shall be well illuminated.

1.22(2) Narcotics must be securely locked at all times and accessible only to persons in charge.

1.22(3) All medications which cannot be reused with safety shall be discarded when orders have been discontinued or patient has been dismissed.

1.22(4) There shall be adequate refrigeration for biologicals and such drug products as require refrigeration.

1.23(135B)T.IX Control of infectious, contagious, and communicable diseases. In hospitals accepting communicable disease patients, there shall be facilities and proper procedures for the prevention and control of infectious, contagious, and communicable diseases, and the hospital and its staff shall provide for compliance with the rules for the control of communicable diseases as provided by the state department of health.

1.23(1) Segregation. There shall be facilities and proper arrangement of departments, rooms, and patients' beds to provide for the prevention of cross-infections and the control of infectious, contagious and communicable diseases.

a. The maternity and newborn infant services shall be segregated from other services, so as to avoid transmission of infections, and there shall be provisions for removal of infectious maternity or newborn cases to a location where proper isolation can be carried out.

b. There shall be facilities for the isolation or segregation of unclean or infectious medical or surgical cases, and there shall be facilities and proper procedures for the cleansing of rooms and surgeries, immediately following the care of an infectious or contagious case.

c. Segregation of infectious cases shall include policies for the medical, nursing, and lay staffs, providing for proper isolation technique in order to prevent cross-infection between patients, departments and services in the hospital.

d. In planning new hospitals or additions to existing hospitals, there shall be complete separation of obstetrical and surgical services; also, there shall be one or more rooms for contagion, according to the size of the hospital and the needs of the community. Rooms planned for isolation of patients shall have adjoining lavatory and toilet facilities isolated from the rest of the hospital.

1.23(2) Visitors. The governing authority of the hospital shall establish proper policies for the control of visitors to all services in the hospital in accordance with hospital practice.

a. Maternity hospitals and maternity departments: In maternity hospitals and maternity departments, not more than two visitors in addition to the husband shall be permitted to a patient during visiting hours, and no visitors under fourteen years of age shall be permitted beyond the lobby of a maternity hospital or the visitors' waiting rooms of a maternity department.

b. Whenever babies are shown to visitors there must be a complete separation by a glass window.

c. Visitors with colds or any other apparent signs of infection shall be excluded from the hospital.

1.24(135B)T.IX Fire prevention and safety.

1.24(1) Facilities and construction shall be in accordance with rules and regulations of the state and local fire authorities, and shall be so certified by the local authority.

1.24(2) There shall be at least one piece of first-aid fire fighting equipment on each floor of every hospital building. Where special hazards exist the type of fire fighting equipment recommended by the state fire marshal shall be used.

1.24(3) Fire extinguishers shall be inspected periodically and recharged; the date of check shall be registered on the tag attached to extinguisher.

1.24(4) A system of warning occupants and attendants of fire shall be provided. The type, location, device and central point shall be determined by the local fire authority or the state fire marshal.

1.24(5) All employees shall be instructed in the fire prevention facilities of the institution, use of fire fighting apparatus, and the methods of removing patients from the building. A person within the institution shall be designated to give these instructions and to be responsible for evacuating patients in case of fire.

1.24(6) All parts of the heating system shall be constructed and maintained so as to eliminate fire hazards. Metal and asbestos protection must be provided for all steam pipes

and hot water pipes when placed nearer than two inches from woodwork.

1.24(7) Laundry chutes and dumb-waiter shafts shall be lined with fireproof materials and have close-fitting doors. No shaft shall terminate in the attic.

1.24(8) Elevator shafts shall be enclosed with fireproof material. There shall be no open grille work in new construction.

1.24(9) Plain lettered red exit lights shall be located at fire exits on each floor and shall be kept burning between sunset and sunrise.

1.24(10) All exit doors shall open outward.

1.25(135B)T.IX Pharmacy service.

1.25(1) The pharmacy operating in connection with a hospital shall comply with 1.22 (135B)T.IX, and shall comply with the provisions of the pharmacy law requiring registration of drug stores and pharmacies, and the rules of the Iowa state board of pharmacy examiners.

1.25(2) In all hospitals with a pharmacy or drug room, this service shall be under the complete supervision of a pharmacist licensed to practice in the state of Iowa.

1.26(135B)T.IX Radiology service.

1.26(1) There shall be safe X-ray equipment and competent operators in the hospital, or available for the hospital's use in the immediate community, sufficient for radiography, fluoroscopy, and the development of films.

1.26(2) Adequate protection for the patients, the operators, and nearby personnel shall be provided.

1.27(135B)T.IX Laboratory service.

1.27(1) Sufficient laboratory and pathological facilities shall be provided in the hospital, or arrangements made with nearby hospitals or laboratories, to provide these services in accordance with the needs of the patients treated in the hospital.

1.27(2) Minimum laboratory facilities for urinalysis and blood counts shall be provided in every hospital.

1.27(3) All laboratory services shall be under the supervision of a physician, preferably a clinical pathologist.

1.28(135B)T.IX Emergency and out-patient services.

1.28(1) All hospitals shall provide space and facilities for emergency care and treatment, including the administration of blood or blood plasma and intravenous medication, facilities for the control of bleeding, the emergency splinting of fractures, and for the administration of oxygen and anesthesia. Competent personnel shall at all times be available or on call for the care of emergencies.

1.29(135B)T.IX Surgical departments. Hospitals providing for the surgical care of patients shall provide an operating room or rooms, graduate nursing personnel, modern surgical equipment in good repair to assure safe and aseptic treatment of all surgical patients, and to protect all clean or elective surgical patients from cross-infection.

1.29(1) Surgery location and equipment.

a. There shall be at least one room provided for surgery in all hospitals providing surgical care.

b. The operating room shall have impervious floors and washable walls.

c. There shall be satisfactory means of illumination of the operating field, as well as general illumination. Safe and adequate auxiliary lighting shall also be provided.

d. Minimum facilities for sterilization (substerilizing) shall be provided in close proximity to the operating room.

1.29(2) Surgical beds and wards. In hospitals providing care for surgical patients, provisions shall be made for the setting aside of surgical beds, and the arrangement shall be in a manner such as to protect elective and clean surgical cases from cross-infection from unclean or infectious surgical cases.

1.29(3) Pathology examination service. It shall be the policy of all hospitals providing services for surgical care to have available facilities for the pathological examination of tissue specimen, either on the premises or by arrangement through affiliation, or other means, with a competent pathological laboratory.

1.30(135B)T.IX Obstetric service. All general or specialized hospitals providing for the obstetrical care of maternity patients shall be properly organized and equipped to provide accommodations for mothers and newborn infants; the supervision of the maternity department shall be under the direction of a qualified registered nurse; there shall be accommodations for the isolation of infected cases; there shall be facilities and quarters for a formulary for newborn infants providing for equipment, personnel, and food-handling apart from the possibility of cross-infection from adult patients, or chemical poisons, particularly, boric acid in powder or solution.

1.30(1) Location and arrangement of obstetric and newborn services. Obstetric and newborn services shall be so located and arranged as to provide for complete protection of mothers and newborn infants from infection and from cross-infection from patients in other services in the hospital.

a. Labor and delivery room facilities. Room or rooms shall be set aside for the use of maternity patients for labor and delivery, and every precaution shall be taken to prevent the housing of patients with an infectious, contagious, or communicable disease; recognized policies shall be established for the thorough and complete cleansing of such rooms

after care of a patient with an infectious condition. Proper nursing techniques shall be carried out by personnel assigned to the obstetrical service to insure safe care within this area.

b. Newborn nursery, suspect nursery, and provisions for isolation. There shall be exclusive rooms for the care of newborn infants and provisions for a suspect nursery for infants suspected of a contagious, infectious, or communicable disease; there shall be provisions for the complete isolation of infants with a known infectious, contagious, or communicable disease. Newborn and older infants admitted from the outside shall not be cared for in the normal newborn nursery.

1.30(2) Labor and delivery room services. The number of rooms for labor and delivery and the technical equipment for these rooms shall be commensurate with the needs of the hospital; there shall be in all hospitals facilities and supplies for the treatment, including the administration of plasma to maternity patients suffering from shock or hemorrhage.

1.30(3) Care of the newborn.

a. In all hospitals providing maternity care, or care of the newborn infant, there shall be nursing personnel exclusively assigned to the service, and proper facilities to provide for segregation of newborn infants, control of the spread of diseases of the newborn, particularly epidemic diarrhea and impetigo, facilities for care of the premature infant, including incubators. Necessary policies and procedures shall be established to insure safe care.

b. In every hospital providing care of maternity patients and care of the newborn, there shall be at least one premature care incubator of a design approved by the state department of health.

1.30(4) Formulary. In every hospital providing care for the newborn, there shall be space set aside for a formulary providing for the storage, handling and preparation of infant formulas apart from food provided to adult patients. No drugs or other extraneous substances shall be kept in the formulary.

1.30(5) Reporting of children born out of wedlock. Children taken from the hospital by persons other than their own parent or parents, and referrals for child placement or adoption shall be in accordance with the laws and the rules of the state department of social services.

1.31(135B)T.IX Pediatric services. All hospitals providing pediatric care shall be properly organized and equipped to provide adequate service.

1.31(1) A hospital providing care for children shall have registered nursing personnel commensurate with the needs of the hospital and the size of the service.

1.31(2) Hospitals providing pediatric care shall have proper facilities for the caring of children apart from the services for adult

patients. Apart from the newborn nursing service, there shall be proper facilities and procedures for the isolation of children with infectious, contagious, or communicable diseases.

1.32(135B)T.IX Tuberculosis hospitals.

1.32(1) Any hospital or sanatorium primarily intended for the reception, diagnosis, care, and treatment of tuberculosis cases shall be considered a tuberculosis hospital or sanatorium, and shall conform to all the requirements set forth in the foregoing standards and regulations for general hospitals and special hospitals, except that maternity facilities need not be provided as part of the tuberculosis hospital service if provision is made for adequate prenatal care at the institution, and arrangements are made for the delivery, postpartum care of the mother, and the care of the infant at some available licensed hospital that does provide maternity service.

1.32(2) The professional staff shall be personnel especially qualified in the diagnosis and treatment of tuberculosis.

1.32(3) All patients diagnosed or suspected of having tuberculosis shall be segregated from the noninfectious patients in the hospital.

1.32(4) The use of infectious disease precautions (isolation technique) shall be established for the protection of the patients, hospital personnel, and visitors, and the necessary instruction given to patients, personnel and visitors to insure this procedure.

1.32(5) Personnel employed at tuberculosis hospitals shall have a complete physical examination which shall include skin tests with tuberculin, and a chest X-ray at the start of service of employment, and annually thereafter, unless indicated at shorter intervals.

1.33(135B)T.IX Nervous and mental disease hospitals.

1.33(1) Any nervous and mental disease hospital operating as a nervous and mental disease hospital, must be devoted primarily to the care of mental cases, have a staff of professional personnel especially qualified in the diagnosis and treatment of mental illnesses.

1.33(2) Hospitals admitting mental patients shall be under the direction of a well-qualified physician who is experienced in psychiatry.

1.33(3) There shall be in attendance at all times a registered nurse with special training or experience in the care of mental patients.

1.33(4) Nervous or mental patients shall be admitted to mental hospitals in accordance with the commitment laws of Iowa.

1.33(5) Patients should be grouped according to age, degree of activity, kind and duration of mental illness. Children under sixteen years of age, alcoholics and drug addicts, patients with favorable prognosis shall be seg-

regated, as well as patients with tuberculosis or other communicable diseases.

1.33(6) Facilities for isolation as recommended by the attending physician shall be provided.

1.33(7) Rules pertaining to general hospitals are applicable to mental hospitals; except that maternity facilities need not be provided as part of the mental hospital service if provision is made for adequate prenatal care of the mother, and the care of the infant at some available licensed hospital that does provide maternity service.

1.34(135B)T.IX Contagious disease hospital.

1.34(1) Any contagious disease hospital operating as a contagious disease hospital, which is not primarily a tuberculosis hospital, shall conform to all the requirements and facilities which will insure adequate care for the patients served.

1.35(135B)T.IX Penalty and enforcement.

1.35(1) See 135B.14 through 135B.16 of the Code.

1.36(135B)T.IX Validity of rules.

1.36(1) If any provision of these rules or the application thereof to any person or circumstances shall be held invalid, such validity shall not affect the provisions or application of these rules which can be given effect without the invalid provision or application, and to this end the provisions of these rules are declared to be severable.

[Filed June 30, 1948]

TITLE X

LICENSING OF NURSING HOMES AND CUSTODIAL HOMES

CHAPTER 1

GENERAL REQUIREMENTS

1.1(135C)T.X Definitions.

1.1(1) *Department.* Means the state department of health.

1.1(2) *Nursing home.* See section 135C.1 of the Code.

1.1(3) *New nursing home.* Means one erected as a nursing home after the effective date of the rules or one converted to nursing home use after the effective date of the rules.

1.1(4) *Custodial home.* See section 135C.1 of the Code.

1.1(5) *New custodial home.* Means one erected as a custodial home after the effective date of the rules or one converted to custodial home use after the effective date of the rules.

1.1(6) *Alcoholism.* Means the excessive or prolonged use of alcoholic liquors, which has become a habit, with the resultant disturbances of the digestive or nervous systems.

1.1(7) Drug addiction. Means the excessive or prolonged use of narcotic drugs for the comfort such indulgence affords, when there is no illness or other legitimate reason for such practice and when the habit is not broken by the user.

1.1(8) Communicable disease. Means that period during the stage of certain diseases when the disease can be transmitted from one person to another. The period of communicability of the disease shall be found in the rules for the control of communicable disease, published by the department.

1.1(9) Mental illness. Means a condition which makes the person dangerous or potentially dangerous to himself or others and requires the general use of restraints.

1.1(10) Ambulatory patient. Able to walk or move about without the aid of another individual or a mechanical device such as a wheelchair.

1.1(11) Custodial care. Defined as the provision of one or more of the following personal services:

a. Bathing and personal cleanliness, including shaving, care of hair, feet and nails.

b. Supervision to insure that proper clothing is worn in accordance with the weather.

c. Supervision of recreational and routine activities on or off the premises.

d. Tray service if unable to go to the dining room.

e. Temporary nursing service for short illness and relatively minor ailments.

f. Supervision of all medicines and drugs in the home except those in which the physician signifies in writing that the resident is mentally and physically capable of handling the medication.

1.1(12) Qualified nurse. Means a currently licensed Iowa registered nurse or a currently licensed Iowa practical nurse.

1.1(13) Chairfast patient. A patient who because of mental or physical condition is unable to bear his weight even with the aid of a mechanical device or another individual.

1.1(14) Bedfast patient. A patient who is continuously in bed because of mental or physical disability and requires twenty-four hour nursing care.

1.1(15) Nursing care. For the purpose of this Act, nursing care shall mean a planned program of service which meets the physical and emotional needs of the patient, is supervised or administered by a qualified nurse and includes those services which a patient normally cannot do for himself, such as bed bath, treatment, medication, nutrition and rehabilitation.

1.1(16) For the purpose of this Act, the use of the words "shall" and "must" indicate those standards which are mandatory. The words "should" and "could" indicate those standards which are recommended.

1.2(135C)T.X Admission policies.

1.2(1) Acutely ill patients shall be transferred to the nearest general hospital unless a physician indicates in writing that the patient may be cared for satisfactorily in present accommodations. Such authorization shall be preserved with the patient's record.

1.2(2) No home shall admit more patients than the number of beds for which it is licensed. There shall be no more beds erected than is stipulated on the license.

1.2(3) Nursing homes which offer care to children under twenty-one years of age shall provide separate facilities and staff. See chapter 3,T.X.

1.3(135C)T.X Administration and staff policies.

1.3(1) There shall be some one person in charge of the home at all times. This person may be the owner or manager of the home or a person designated for the purpose who is qualified to assume the management and operation of the home and who is at least twenty-one years of age and not more than seventy years of age.

1.3(2) Whenever possible, personnel shall be employed for specific duties within the home.

1.3(3) Hours of work, vacation time, pay allowance and duties shall be established at the start of employment. The agreement shall be in writing and signed by both parties.

1.3(4) Health certificates for all personnel, including the operator, shall be available for inspection. A medical certificate, given by a reputable physician, for every person caring for patients or handling food, stating as a result of a physical examination, chest X-ray and indicated laboratory procedure, that the employee or person is free from any infectious or communicable disease in a communicable stage, or a carrier of disease and is physically and mentally able to perform his duty. Such certificate shall be renewed at least once annually. No person suffering from infectious or contagious disease or who is a carrier shall be employed in a nursing home.

1.3(5) It is recommended that nursing home operators or administrators attend the educational institutes.

1.4(135C)T.X Personnel.

1.4(1) General qualifications.

a. Persons employed in the home shall have sufficient experience and qualifications to perform the type of work for which they have been employed.

b. The nurse employed to supervise nursing service shall be a qualified nurse as defined in these regulations.

c. All nursing service personnel employed in the home shall be at least eighteen years of age and not more than seventy years of age, of at least average intelligence and of good character.

d. Persons employed for nursing service shall have had training as nurse aides or have had experience as nurse aides unless there is an in-service training program under the supervision of a qualified nurse.

e. Persons in charge of meal planning and food preparation shall have had special training in the work or have had experience in home management.

f. All persons employed in the home shall have a genuine liking and understanding of the aged and chronically ill.

g. All persons employed in the home shall be in good physical and mental health.

h. No person who is an habitual user of narcotics, drugs or alcoholic liquors shall be employed in the home.

i. No person with a communicable, contagious or infectious disease shall be employed in the home.

1.4(2) *Medical supervision.*

a. Every patient in the home shall be under the medical supervision of a physician legally licensed to practice medicine in Iowa.

b. Each patient shall be allowed free choice of a physician. The physician shall visit the patient as necessary to assure adequate medical care, each patient shall be visited at least once every three months.

c. Arrangements shall be made with a physician to be available for emergencies in the home in case the patient's own physician cannot be reached.

d. Each patient shall have a complete physical examination immediately before admission to the home or within a week after admission. A record of the examination, signed by the physician making the examination, shall be a part of the patient's medical record.

1.4(3) *Nursing supervision and staffing.*

a. A qualified nurse shall be employed to supervise the nursing service in all nursing homes.

(1) In homes with a licensed bed capacity of fourteen or less, the nurse shall be on duty for a minimum number of hours equivalent to one hour per week, per bed (licensed bed capacity) and on recall for duty when not on regular assignment.

(2) In homes with a licensed bed capacity of fifteen to fifty, the nurse shall be on duty at least forty hours per week and on recall for duty when not on regular assignment.

(3) In homes with a licensed bed capacity of fifty-one to one hundred, a nurse shall be on duty at least an aggregate of eighty hours per week, with one nurse on recall when not on regular assignment.

(4) In homes with a licensed bed capacity of over one hundred, a nurse shall be on duty at least an aggregate of one hundred twenty hours per week, with one nurse on recall when not on regular assignment.

(5) Recommended duty hours for qualified nurses are 7:00 a.m. to 3:30 p.m., but

the actual hours should be during the period of the most concentrated nursing care.

(6) After June 1, 1964, in homes of a licensed bed capacity of less than twenty beds, there shall be at least one qualified nurse on duty forty hours per week, and on recall when not on regular assignment.

(7) After June 1, 1964, in homes with a licensed bed capacity of twenty to fifty, a nurse shall be on duty at least eighty hours per week, with one nurse on recall when not on regular assignment.

(8) After June 1, 1964, in homes with a licensed bed capacity of fifty-one to one hundred, a nurse shall be on duty at least one hundred twenty hours per week, with one nurse on recall when not on regular assignment.

(9) After June 1, 1964, in homes with a licensed bed capacity of over one hundred, a nurse shall be on duty at least one hundred sixty hours per week, with one nurse on recall when not on regular assignment.

b. There shall be at least one person up and dressed during the night; the person shall be capable of rendering nursing service.

c. Nursing service for female patients shall be provided by female personnel.

1.5(135C) T.X Patient policies.

1.5(1) *Patient care.*

a. All medications and treatments shall be administered by a nurse or a qualified person. Oxygen shall be administered only on direct order of a physician and under the twenty-four-hour supervision of a qualified nurse.

b. The nurse shall take care of all indwelling catheters but shall not initiate catheterization.

c. Intravenous injections of any type shall not be administered in any institution defined in these rules except in an emergency and then only when supervised or administered by a physician or authorized registered nurse.

d. Each patient shall be given proper personal attention and care or supervision of care, including skin, nails, hair and oral hygiene in addition to specific care ordered by the physician.

e. Each patient who is physically able shall be up and out of bed for at least a brief period each day, unless the physician has written an order for him to remain in bed.

f. Patients shall have clean clothing as needed to present a decent appearance, to be free of odors and to be comfortable.

g. Treatments shall be carried out according to the physician's order, using acceptable nursing techniques to safeguard the patient, minimize discomfort and obtain the physician's objective. No treatments shall be given without the physician's written orders.

h. Each patient shall have a minimum monthly shampoo and weekly complete bath. Patients who are bedfast shall have a complete sponge bath at least every other day.

i. Patients who are bedfast shall have their body position changed several times a day.

j. Patients who are incontinent shall have partial baths each time the bed or clothing is soiled. The soiled or wet linen and clothing shall be replaced with clean, dry ones.

k. Rubber or plastic covers shall be used to protect the pillows and mattresses. The protecting covers shall be cleaned often to prevent odor. Patients shall be protected from direct contact with rubber or plastic covers by the use of cotton draw sheets.

l. Special attention and care shall be given to the skin of bedfast patients so that pressure sores (bed sores) will not occur.

m. Patients shall be encouraged to leave their rooms and use the recreational facilities of the home as much as possible.

n. One or more bedrooms shall be available for use of patients, ill, indisposed or in need of isolation.

o. Sexes shall be separated by means of separate wings, floors or rooms, except in cases of husband and wife. Rooms shall be so arranged that it will not be necessary for a patient to pass through rooms of the opposite sex to reach toilet facilities or other areas of the home.

1.5(2) Restraints.

a. Restraints are to be applied only as a measure to prevent the patient who is mentally disturbed or unmanageable from harming himself or other patients and then only after other measures have proven unsuccessful.

b. There shall be a written order signed by the attending physician approving the use of restraints either at the time they are applied to the patient or in the case of emergency, within twenty-four hours after they have been applied. No such orders shall be valid for more than forty-eight hours.

c. The form of restraint used shall not be painful to or in any way physically harm the patient.

d. Patients shall not be kept behind locked doors. If it becomes necessary to confine a patient in his room, a half door or screen door with a hook shall be used.

e. If a patient becomes disturbed and unmanageable, he shall be removed from the home within a period of time not exceeding five days. During the disturbed state, a patient shall receive management for same only under the direction of a physician. If the patient does not respond to treatment provided by the physician within the five-day period, necessary legal proceedings shall be initiated for the removal of the patient from the home.

1.5(3) Patient privileges.

a. Patients shall be allowed individual freedom to attend the church of their choice, movies, go for walks and engage in other outside activities as long as they are physically and mentally able.

b. Visiting shall be permitted; a patient's friends or relatives shall have access to the home for visiting purposes.

c. Reasonable visiting hours may be established by the operator. If visiting hours are established they shall be posted in a conspicuous place.

d. A patient's pastor shall be permitted to visit him at all reasonable hours. Privacy for consultation, communion or for interviews with other professional people as necessary shall be the privilege of every patient.

e. There shall be written agreement between the nursing home operator and each patient, relative to the cost of care. The agreement shall be signed by the operator and the patient or by the patient's legal representative.

f. The operator shall not refuse to discharge or transfer a patient when the physician, family, patient or legal guardian requests such a discharge or transfer. The attending physician should be consulted or notified in all cases of discharge or transfer.

1.6(135C) T.X Records.

1.6(1) Personnel.

a. A record shall be maintained for each employee, setting forth the following information:

- Name and address of employee
- Social security number of employee
- Date of birth
- Date of employment
- Experience and education
- References (names and addresses of three)
- Position in the home
- Date of discharge or resignation
- Reason for discharge or resignation

b. A record of the employee's physical examination shall be kept on file in the home.

1.6(2) Financial.

a. Financial records shall be established and maintained showing amounts and sources of income and expense.

b. A record of all sums received shall be kept up to date and available for inspection by duly authorized persons.

1.6(3) Patient records.

a. Admission record. The operator shall keep a permanent admission record on all patients admitted to the home. The following information shall be recorded:

- Date of admission and discharge
- Name and address of patient
- Birthdate, marital status of patient
- Financial responsibility
- Church affiliation
- Physician's name, telephone number and address
- Undertaker's name, telephone number and address
- Name and address of nearest relative or friend

Name, address and telephone number of person to be notified in an emergency

- Admission diagnosis
- Discharge diagnosis

b. Record of physical examination. This record to be filled out when the physician makes the admission physical examination.

The following information shall be recorded and signed by the physician making the examination:

Patient's name, sex, age
Present complaint
Record of physical examination
Diagnosis

c. Doctor's orders. All orders for treatment and medication shall be written by the physician or verbal or telephone orders given by the physician may be written by the nurse but shall be signed by the physician; no treatments or medicines shall be given without a physician's order.

d. Nurse's record. A permanent record shall be kept for each patient by the nurse. The record shall include the following information:

Date, time and dosage of each medication administered

Date and time of all treatments and dressings

Date and time of physician's visit

Record of all pertinent factors pertaining to the patient's condition

Record of all accidents to the patient in the home

Date and time of discharge or death

e. Narcotic record.

(1) All narcotics prescribed for patients in a nursing home shall be handled in the manner required by the Harrison Narcotic Law which includes keeping them in a special narcotics cabinet under lock and key at all times, and with the written record of usage and with written authorization and order for use by a doctor.

(2) Unused supply of narcotics, upon the death or discharge of patient for whom prescribed, shall be returned to the physician and a signed receipt obtained by the nursing home operator.

f. Death record. The death record shall include the following information:

Name, age, sex and race of deceased

Date and time of death

Physician's name and address

Immediate cause of death

Name and address of relative or friend notified of death

Name and address of undertaker receiving the body

Signatures of the physician and undertaker

1.6(4) Reports.

a. An annual report shall be made to the department regarding operating data during the preceding year (January 1 to January 1). Forms will be furnished and mailed for this purpose.

b. Any occurrence of food poisoning, outbreak of epidemic, contagious disease or any other unusual occurrence shall be immediately reported by telephone or telegram to the department or to the nearest health officer and shall be followed by a written report.

c. The nursing home license shall be surrendered to the department on change of own-

ership, name or location of the nursing home, death of the licensee or in case of ceasing to operate as a nursing home.

d. Change from a licensed nursing home to a custodial home shall be made by return of the nursing home license to the department and filing an application for a custodial home license within the licensing year.

e. A field visit memorandum indicating violations and recommendations signed by the inspector and the administrator or person in charge of the home shall be left in the home at the time of the inspection.

1.7(135C)T.X Furnishings and equipment.

1.7(1) Communication.

a. Every home shall have at least one telephone within the building and such additional telephones as are required to summon help promptly in case of emergency. A telephone shall be provided for the use of patients in the home.

b. Every home shall be located on an all weather road which is kept open for traffic at all times.

1.7(2) Bedrooms.

a. Each patient shall be provided with a bed. A standard single or twin bed, substantially constructed and in good repair. Roll-away beds, metal cots or folding beds are not acceptable. Beds shall have headboards and footboards. Adjustable hospital beds are desirable for bed patients.

b. Each bed shall be equipped with the following:

A clean spring in good repair

A clean, comfortable, well-constructed mattress approximately five inches thick and standard in size for bed

Clean, comfortable pillows of average bed size

Moisture proof covers and sheets as necessary to keep the mattress and pillows dry and clean

c. Each patient shall have a bedside table or its equivalent with compartment or drawer to accommodate personal possessions.

d. There shall be a comfortable chair, either a rocking chair or arm chair, per patient bed.

e. There shall be a chest of drawers or a bureau with drawers for the patient's clothing. In multiple rooms drawer space shall be assigned each patient.

f. There shall be a wardrobe or a closet in each patient room. In multiple rooms, closet or wardrobe space shall be assigned each patient.

g. There shall be a nurse call system or call bells provided for each patient.

h. Reading lamps or bed lamps are recommended for each patient bed.

i. Bed screens or curtains shall be supplied in semiprivate or multibed rooms to insure privacy for patients.

j. Window shades and curtains shall be clean, attractive and maintained in good repair.

k. Bedrooms shall be of size to allow a minimum eighty square feet of floor space in single-bed rooms. Multiple-bed rooms shall be of a size to provide a minimum of sixty square feet per bed, seventy square feet per bed is recommended.

1.7(3) *Bath and toilet facilities.*

a. Toilet and bathing facilities shall not open directly onto food preparation areas nor be located in such a manner that patients or employees carrying bedpans or urinals must pass through food preparation areas.

b. Toilet and bath facilities shall be provided in number ample for use according to number of patients of both sexes, and personnel of the institution. Minimum requirements shall be one lavatory, one toilet, and one shower or tub for each ten persons, or fraction thereof, of each sex. The minimum shall be one bathroom with toilet on each floor. Grab bars shall be provided at all toilets and bathtubs.

c. In nursing homes where the total occupancy of family, employees and patients is six or less, one toilet and one tub or shower shall be the acceptable minimum requirement.

1.7(4) *Kitchen.*

a. The kitchen shall be one of the cleanest areas of a home.

(1) There shall be at least one two-compartment sink in all kitchens unless a three-compartment sink is used for dishwashing.

(2) Handwashing lavatories for the use of food handlers shall be provided.

(3) Minimum equipment and furniture includes:

Adequate cupboards equipped with doors for storage of all eating and cooking utensils and food supply.

Adequate work table top and counter space for preparing and serving of all foods for patients and personnel.

(4) Work space and table tops shall be covered with materials which can readily be cleaned.

(5) Bread boards and meat chopping boards shall be maintained in a clean and sanitary condition. Wood surfaces should be kept as smooth as possible to eliminate grooves and dents.

(6) Frequent cleaning of floors, walls, woodwork and windows is necessary. Window sills shall be kept free from storage so that they can be kept clean.

(7) Mopheads shall be frequently run through washing machines.

1.7(5) *Living room.*

a. A living room or parlor shall be provided for the exclusive use of patients and their visitors and may be used for recreational activities.

b. The living room shall be easily accessible to all patients in the home. In large homes of two or more stories, it is desirable to have a living room on each floor.

c. The living room shall be well heated and lighted and shall be comfortably furnished; chairs, lights, radio, current magazines, daily newspapers and appropriate diversional therapy such as cards and checkers.

d. Window shades and curtains shall be clean and attractive and maintained in good repair.

1.7(6) *Dining room.*

a. If a dining room is provided it shall be maintained in a satisfactory manner.

b. Patients shall be encouraged to eat in the dining room.

c. The dining room shall be well lighted and ventilated and shall be kept free from odors.

d. Tables and chairs shall be provided. The table tops shall be constructed and finished so as to be easily cleaned and shall be kept clean.

e. Window shades and curtains shall be clean, attractive and maintained in good repair.

1.7(7) *Utility storage and cleaning.*

a. A closet or other enclosed storage space shall be provided for storage of necessary nursing equipment. Basins, bedpans and urinals when not in use shall be stored in the unit.

b. A closet or other room shall be provided, separate from bathroom or kitchen equipped with running water and appropriate sinks or hoppers to facilitate cleaning of nursing care equipment unless the toilet stool is equipped with a bedpan flushing device.

c. A closet or other enclosed space shall be provided for mops, brooms, scrub pails and other utensils used for cleaning purposes.

1.7(8) *Linen supply and storage.*

a. Adequate and convenient storage space shall be provided for all linens, pillows and bedding.

b. A supply of linen shall be available so that each patient shall have at least three clean hand towels, three bath towels, three wash cloths, six clean sheets, six pillow cases and two clean sheet blankets each week.

c. A sufficient supply of bed blankets (wool or wool and cotton) shall be available to keep the patient clean and comfortable with a minimum of two blankets per patient bed.

d. There shall be a reserve supply of linen available so that incontinent patients can be kept clean and comfortable.

1.8(135C)T.X *Supplies and equipment for nursing service.*

1.8(1) Adequate and satisfactory equipment shall be provided for nursing service. The amount will vary in accordance with the size of the home.

1.8(2) The following list of articles shall be provided:

HARDWARE
Mouth wash cups
Bath basins
Bathroom scales
Irrigating can
Bedpan
Emesis basin
Urinals
Quart graduate measure
Metal pitcher
Footstool
Bed rails
Wheelchair
Commodos
RUBBER GOODS
H₂O bottles
Ice cap
Rectal tubes
Catheters
Douche nozzle
Rubber or plastic pillow covers
Rubber or plastic sheets
Rubber rings
MISCELLANEOUS SUPPLIES
Disinfectant solution
Rubbing lotion
Alcohol
Lubricating jelly
Vaseline
Paper towels
Paper handkerchiefs
Oral thermometers
Rectal thermometers
Insulin syringe
Medicine glasses
Cotton
Bandages
Applicators
Tongue depressors
Toilet tissue
Adhesive
2 c.c. Hypodermic syringe and needles

1.9(135C)T.X Drug storage and handling.

1.9(1) A cabinet with a lock shall be provided and used for the storage of all drugs, solutions and prescriptions. There shall be some type of work counter in direct proximity to the cabinet and both cabinet and counter shall be well lighted. It is recommended that running water be in close proximity to medicine storage.

1.9(2) Drug storage shall be located in an area that is convenient to nursing service. A bathroom is not a satisfactory location for drug storage.

1.9(3) The storage cabinet shall be kept locked and the person directly responsible for issuing medicines shall keep the key in her possession. Poisons and prescription medications for external use shall be kept in a locked cabinet and separate from other medications.

1.9(4) A special locked box shall be kept within the cabinet for the safekeeping of all narcotics. Records shall be kept of all narcotics that are received and dispensed.

1.9(5) Biologicals and other medications requiring refrigeration shall be kept in the refrigerator. In small homes the kitchen refrigerator may be used if the medications are plainly labeled with the patient's name and room number and are stored in a separate compartment of the refrigerator.

1.9(6) No medicines prescribed for one patient may be administered to or allowed in the possession of another patient.

1.9(7) Drug labeling.

a. All medications prescribed by a physician shall be labeled. The label of each patient's individual medication container shall clearly indicate the patient's full name, physician's name, prescription number, name and strength of drug, dosage, directions for use, and date of issue, name, address and telephone number of pharmacy or physician issuing the drug.

b. Medication containers having soiled, damaged, illegible, or makeshift labels shall be returned to the issuing pharmacist or pharmacy or physician for relabeling or disposal. Medications in unlabeled containers shall be destroyed.

c. The medications of each patient shall be kept or stored in the originally received containers.

1.9(8) When a patient is discharged or leaves the home, the unused prescription shall be sent with him or a responsible agent. Unused prescription drugs prescribed for patients who have deceased shall be destroyed by the responsible nurse or returned to the dispensing pharmacist for destruction. The State Board of Pharmacy Examiners, State Capitol Building, Des Moines, Iowa, shall be notified for instruction concerning disposal of unused narcotics prescribed for patients who have deceased.

1.9(9) Prescriptions shall not be automatically refilled; they can only be refilled with the permission of the attending physician. Bulk supplies of prescription drugs shall not be kept in a nursing home unless a licensed pharmacy is established in the nursing home under the direct supervision and control of a pharmacist.

1.9(10) A qualified nurse or a responsible person shall administer all medications. The nurse shall be held responsible for all medications. The person assigned the responsibility of medication administration must complete the procedure by personally preparing a unit dose, administering, and recording the medication given. Where the unit dose is prepared by a pharmacist or under the direct supervision of a pharmacist, the medication may be administered and recorded by another person. A written record of medications administered shall be made by the person administering the medication. Said recording of medications may be transferred to the patient's permanent record by another individual, but the original shall be kept on file for no less than thirty days. The actual act of swallowing oral medications shall be observed personally

by the individual responsible for administering medications. Any unusual patient reaction shall be reported to the physician at once.

1.9(11) No patient shall be allowed to keep in his possession any medications unless the attending physician signifies in writing on the patient's medical record that the patient is mentally and physically capable of handling his medicines.

1.9(12) No medications, prescriptions included, shall be administered to a patient without a written order signed by the attending physician. Medications not specifically limited as to time or number of doses when ordered shall be automatically stopped in accordance with a written policy developed by the nursing home and the attending physician.

1.9(13) A pharmacy operating in connection with a nursing home shall comply with the provisions of the pharmacy law requiring registration of pharmacies, and the rules of the Iowa state board of pharmacy examiners.

In all nursing homes with a pharmacy or drug supply, this service shall be under the complete supervision of a pharmacist licensed to practice in the state of Iowa.

1.9(14) Emergency medication tray. A nursing home may provide an emergency medication tray containing prescription drugs. If such emergency medication tray is provided, there shall be compliance with the following requirements:

a. The prescription drugs must be prescribed by the physicians who provide emergency service to the nursing home and the nonprescription contents must be approved by them.

b. The tray shall contain a list of its contents, including quantities, on the outside cover and within the box.

c. The tray shall be sealed with a seal which may be opened when the drugs are required in an emergency or for inspection.

d. A permanent record shall be kept of each time the tray is utilized.

e. The tray shall be inspected by a pharmacist at least every three months to determine the stability of items in the tray and to replace any items removed and not replaced and immediately after each time the tray is used. A permanent record shall be kept of inspections by a pharmacist.

1.10(135C)T.X Food and food service.

1.10(1) Food requirements shall conform to the U. S. department of agriculture nutritional standards for the sedentary or incapacitated. At least three meals per day shall be served with a minimum of ten hours between breakfast and the evening meal.

1.10(2) The following lists a minimum standard for kinds and quantities of food per patient, per week. This may be used as a guide for food purchasing:

*Milk	5	quarts
Potatoes	2.5	pounds
Dry Beans	4	ounces
Citrus Fruits	2	pounds
Green and Yellow Vegetables	3	pounds
Eggs	5	
Meat	2.5	pounds
**Flour—Cereals	3	pounds
Fat	½	pound
Other Vegetables and Fruits...	4	pounds
Sugar, Syrup and Preserves..	12	ounces

*Milk or equivalent in cheese, dry milk, evaporated milk, etc.
 **Count 1.5 pounds of bread as one pound of flour.

1.10(3) Special diets may be ordered by a physician and such diets shall be served as ordered and recorded in the patient's record. A recommended reference guide for such meal planning is the "Simplified Diet Manual" by the nutrition service of the Iowa state department of health and the Iowa dietetic association, published by the Iowa State University press.

1.10(4) Patients' meals shall be served in an attractive manner and all meals should have appetite appeal.

a. Meals shall consist of a balanced selection; not all carbohydrates and fat foods or all protein foods, but reasonable servings of each. At least one meal each day shall include a meat dish. A meat substitute may be used if the patient's religious beliefs or prescribed diet prohibits meat.

b. Table service. The food service shall be attractive with individual dishes for the various foods. Dishes shall be of durable china or plastic. Clean and attractive table covers shall be used. Surroundings shall be pleasant and attractive.

c. Tray service shall consist of individual china or plastic dishes on an attractive tray. Trays shall be of a quality which will not deteriorate under hot water or mechanical dishwashing.

d. Cracked or chipped dishes shall not be used.

1.10(5) Mashed or strained vegetables and ground meats shall be prepared for those patients who have mastication or digestion difficulty.

1.10(6) Between meal snacks and nourishment shall be available when ordered by the physician for patients who are undernourished or who have poor appetites.

1.10(7) Menus shall be planned at least one week in advance and copies kept in the operator's files for at least six months and may be reviewed by authorized personnel.

1.10(8) All food and drink shall be clean, wholesome, free from spoilage and so prepared as to be safe for human consumption.

1.10(9) If foods are canned or otherwise preserved at the home, they shall be processed under controlled conditions using methods currently recommended by the bureau of

home economics, U. S. department of agriculture. All nonacid vegetables, meats and poultry shall be canned by pressure cooker method.

Donations of home canned or processed foods shall not be accepted. Individual gifts of jam or jelly may be accepted.

1.11(135C)T.X Family and employee accommodations.

1.11(1) If the family or employees live within a home licensed under this Act there shall be provided separate living quarters, including bathing, toilet and recreation facilities.

1.11(2) Operators' or employees' small children shall not be allowed into the areas where nursing home patients are housed or in service areas.

1.11(3) No part of a premise licensed under this Act shall be utilized for any purpose other than operation of the home, as defined in the law, or housing for operator and family or employees.

1.11(4) In nursing homes where the total occupancy of family, employees and patients is six or less, one toilet and one tub or shower shall be the minimum requirement.

1.12(135C)T.X Sanitation.

1.12(1) Location. The home shall be in a good neighborhood, free from excessive noise, dirt or polluted air, and away from railroads, main traffic arteries, industrial developments and similar disturbances. There shall be surrounding land for outdoor activities.

1.12(2) General housing requirements.

a. Every home located within the corporate limits of a municipality having a population of fifteen thousand or more shall comply with all applicable provisions of the state housing law.

b. Every home located within the corporate limits of a municipality shall comply with all local ordinances applicable thereto.

c. The total window area in each room shall be at least one-eighth of the superficial floor area.

d. The ceiling height of all rooms shall not be in any part less than eight feet three inches from the finished floor to the finished ceiling.

e. No part of any room shall be enclosed or subdivided unless such part be separately lighted and ventilated.

f. Every water closet compartment and every bathroom shall have an aggregate window area of at least four square feet.

The above provision does not apply to homes having a system of forced ventilation so constructed as to entirely change the air every seven minutes.

g. No room in a cellar shall be occupied for living purposes.

A cellar is a story having more than one-half of its height below the curb level, or below the highest level of the adjoining ground. A cellar shall not be counted as a story.

h. No room in a basement shall be occupied for living purposes unless in addition to other requirements, such room shall have sufficient light and ventilation, shall be well drained and dry, and shall, in the opinion of the board of health, be fit for human habitation.

A basement is a story partly underground but having at least one-half of its height above the curb level or above the highest level of the adjoining ground. A basement shall be counted as a story.

i. Every home and every part thereof shall be kept clean and shall also be kept free from any accumulation of dirt, filth, rubbish, garbage or other matter.

j. Every home and all parts thereof shall be kept in good repair.

k. Rooms in which beds are placed shall not be used for purposes other than bedrooms.

l. Artificial lighting shall be sufficient to light the entire room area. Exposed light bulbs shall not be used in patient rooms or areas frequented by patients.

m. Battery-operated emergency lights shall be available at all times.

n. All stairs shall have handrails and slip resistant treads.

o. Floors shall be smooth, easily cleaned and slip resistant. Carpeting or rugs shall be clean and in good repair. Small throw rugs shall not be used.

1.12(3) Water supply.

a. Every home shall have a safe and potable water supply.

A municipal source of supply shall be considered as meeting this requirement.

b. Private sources of supply shall be surveyed and shall comply with the recommendations of the division of public health engineering, Iowa state department of health.

c. Private sources of supply shall be tested annually and the report submitted with the annual application for license.

d. Individual testing schedules for private sources of supply may be set at the discretion of the division of public health engineering, Iowa state department of health.

e. A bacterially unsafe source of supply shall be grounds for denial, suspension, or revocation of license.

f. Running water under pressure shall be piped into the house.

1.12(4) Sewerage system.

a. Sewage shall be collected and disposed of in a manner approvable by the department. Disposal into a municipal system will be considered as meeting this requirement.

b. Private sewerage systems shall be surveyed and shall comply with the recommendations of the division of public health engineering, Iowa state department of health.

c. Every home shall have an interior plumbing system complete with flushing device.

1.12(5) Garbage. All garbage shall be stored and disposed of in a manner that will not permit transmission of disease, create a nuisance or provide a breeding place for rodents or insects.

1.12(6) Incineration.

a. Incinerators shall be required for all homes or all wastes shall be properly disposed of in compliance with local ordinances and codes. The incinerator shall be of such design, construction and capacity as to fulfill the needs of the home.

b. The flue gases shall be carried to a point above the roof.

1.12(7) Screens.

a. Screens of sixteen mesh per square inch shall be provided at all openings.

b. Screen doors shall swing outward and be self-closing.

At the direction of the state fire marshal, screens for fire doors may swing in.

1.12(8) Food sanitation.

a. *Handwashing facilities.* Adequate and convenient handwashing facilities shall be provided for all kitchen employees, including hot and cold running water, soap and individual towels.

b. *Dishwashing facilities.*

(1) After each separate use, all dishes, trays, silverware, glasses and cooking utensils shall be thoroughly cleaned and washed in water (110° F. to 120° F.) containing an adequate amount of effective detergent to remove grease and solids. The wash water shall be changed often enough to keep it reasonably clean. Following the washing procedure the dishes, trays, silverware, glasses and cooking utensils shall be subjected to an approved bactericidal treatment.

The washing and bactericidal treatment may be done by either of the following methods:

Three-compartment sink.

Dishes, trays, silverware, glasses and cooking utensils are washed in the first compartment at the above specified temperatures.

The dishes, trays, silverware, glasses and cooking utensils are placed in the second compartment for rinsing. The temperature of the rinse water to be the same as for the wash water. Dishes, trays, silverware, glasses and cooking utensils may be placed in racks following either Step 1 or Step 2.

The racks of dishes, trays, silverware, glasses and cooking utensils are immersed into the third compartment for the following specified time: Clean hot water of 170° F. for two minutes or vigorously boiling water for one-half minute. A supplemental heater will be required in the third compartment to maintain the required temperature. A thermometer shall be immediately available at all times for testing the water temperature.

After immersion in the third compartment for the specified time, the rack of dishes, trays, silverware, glasses and cooking utensils shall be placed on a clean nonabsorbent surface to drain and air dry.

Mechanical dishwashing.

The dishes shall be scraped and rinsed before placing in the rack of the dishwasher. For best results the directions of the manufacturer should be followed.

A supplemental heater shall be provided to maintain the water at the above specified temperatures.

(2) The use of drying towels shall not be permitted.

(3) Hand pouring or spraying of scalding or hot water over the dishes is not satisfactory.

(4) Dishes, trays, silverware, glasses and cooking utensils shall be stored in clean, closed cupboards.

c. *Refrigeration.* All readily perishable food and drink shall be refrigerated below 50° F. except when being prepared or served. This shall include all custard-filled and cream-filled pastries, milk and milk products, egg products, meat, fish, shellfish, gravy, poultry stuffing, sauces, dressings and salads.

d. *Storage of food and drink.* All food and drink shall be stored and served so as to be protected from dust, flies, vermin, rodents, unnecessary handling, droplet infection, overhead leakage and other contamination.

e. *Ice.* Ice shall be stored and handled in such a manner as to prevent contamination.

f. *Practices for personal cleanliness of employees:*

(1) All employees shall wear clean outer garments and shall keep their hands clean at all times while engaged in handling food, drink, utensils or equipment. Employees shall not expectorate or use tobacco in any form in rooms in which food is prepared.

(2) Women employees shall wear hairnets.

(3) Men employees shall wear caps.

(4) Patients shall not be allowed in food-preparation areas except when ordered by a doctor as part of therapy and they must have food handlers' examinations.

(5) No employee shall resume work after using the toilet room without first washing his hands.

g. Milk.

(1) All milk consumed within the home shall comply with all local ordinances or applicable provisions of the state Code.

Milk purchased from a commercial dairy shall be considered as meeting this requirement.

(2) Home-produced milk shall comply with the rules of the Iowa state department of agriculture for Grade "A" pasteurized or Grade "A" raw milk.

h. *Miscellaneous.* No animals shall be allowed within the home. Pet birds shall not be kept in any room where food or drink is prepared and stored.

1.12(9) Heating. A centralized heating system capable of maintaining a minimum temperature of 78° F. shall be provided. Unit or space heaters which consume oxygen from

area which may be occupied or are capable of causing injury or burns are prohibited.

1.12(10) Laundry.

a. Unless laundry is sent out, every home shall be provided with a laundry room equipped with adequate facilities. An adequate storage and counting area shall be provided for both soiled and clean linens.

b. The laundry room, storage and counting area shall be located in a room not used by patients or personnel nor for food storage, preparation or serving. It shall be so located that soiled linens are not carried through food preparation areas except when enclosed in laundry bags.

[Filed October 30, 1957; amended September 18, 1958, February 8, 1963, December 14, 1965, February 13, 1968]

CHAPTER 2

DESIGN AND CONSTRUCTION OF NEW NURSING HOMES

2.1(135C)T.X Location. The home shall be in a good neighborhood, free from excessive noise, dirt or polluted air, and away from railroads, main traffic arteries, industrial developments, and similar disturbances. There shall be surrounding land for outdoor activities.

2.2(135C)T.X Fire regulations. See Public Safety Department, chapter 28, T.III.

2.3(135C)T.X Operation and maintenance. Refer to chapter 1, T.X.

2.4(135C)T.X General requirements.

2.4(1) When construction is contemplated, whether for a new building, additions to existing buildings or functional alterations to existing buildings, plans and specifications shall be submitted, before construction begins, to the department for review and approval.

2.4(2) When the conversion of a building for nursing home use is contemplated, the proposal shall be submitted to the department for review and approval.

2.4(3) Plans and specifications shall be certified by an engineer or architect licensed to practice, or eligible for licensure in Iowa.

2.4(4) The design shall be in accordance with all applicable laws, local municipal codes, and the rules.

2.5(135C)T.X Elements of minimum design.

2.5(1) Administration department.

Business office²

Administrator's office²

Consultation room¹

Lobby and waiting room

Public toilet facilities

2.5(2) Ancillary facilities.

Recreation room²

Patients' dining rooms²

Recommend at least fifty square feet per bed for seventy-five percent of the total beds in the home for recreation and patients' dining

Physical therapy services¹

Patients' laundry¹

Outdoor recreation area

2.5(3) Nursing department.

a. General.

(1) No patient's room shall have more than six beds, not more than three beds deep from outside wall. Not more than two beds per patient room is desirable.

(2) Individual room toilets or connecting baths or half-baths are recommended. In the absence of connecting bath facilities each patient's bedroom shall have a lavatory.

(3) At least one single room with private toilet shall be provided for purposes of medical isolation or incompatibility with other patients in the home.

(4) No patient's room shall be located on any floor which is below grade.

(5) A nurse call system shall be provided.

b. Minimum patient room areas.

(1) Eighty square feet per bed (one hundred square feet desirable) in multiple bedrooms. One hundred square feet per bed (one hundred twenty-five square feet desirable) in single bedrooms.

(2) Patient corridors shall be a minimum of seven feet in width. Handrails shall be provided.

c. Service facilities.

Nurses' station

Nurses' toilet

Utility room²

Treatment room

Floor pantry

Bedpan facilities²

Clean linen storage

Stretcher and wheelchair parking area

Janitors' closet

d. Toilet facilities. If centralized toilets are provided, a toilet room for each sex at a ratio of one water closet to each eight beds or fraction thereof will be required. Appropriate grab bars shall be provided at each water closet. It is recommended that an enclosure at least five feet by six feet be provided to permit toilet training.

e. Bathing facilities. A separate bathroom for each sex containing at least one bathtub or one shower shall be provided. A ratio of one bathtub with appropriate grab bars or one shower with appropriate grab bars for each ten beds or fraction thereof is required.

f. Service department.

Kitchen

Dishwashing facilities

Refrigeration facilities

Garbage handling and storage

Personnel dining facilities

Housekeeping facilities

(1) Clean linen facilities

(2) Soiled linen facilities

Heating plant

Employee locker room and toilet

General storage at least fifteen square

feet per bed and to be concentrated in one area

¹Desirable.

²May be combined.

2.6(135C)T.X Construction standards.**2.6(1) Room finishes.**

a. Floors shall be smooth, easily cleaned and slip resistant.

b. Walls shall have a smooth surface with painted or equally washable finish. At the base they shall be free from spaces which may harbor insects.

c. Ceilings shall be smooth and easily cleaned. It is recommended that ceilings in areas which might become noisy be acoustically treated (corridors, nurses' stations, utility rooms and isolation room).

2.6(2) Structural.

a. All construction shall be in accordance with applicable local building codes and regulations. In areas which are not subject to local building codes, the recommendations of the following nationally recognized technical and engineering authorities shall be used:

(1) *American concrete institute.* For structures built of reinforced concrete.

(2) *American standards association.* For standard practice in masonry construction.

(3) *American society of testing materials.* For methods of testing for metals and masonry construction. For methods of standard fire tests of building construction.

(4) *National lumber manufacturers' association.* For good practice in the use of wood.

(5) *National board of fire underwriters.* For fire resistance ratings of materials and construction.

(6) *National bureau of standards.* For fire resistance ratings of materials and construction.

b. The buildings and all parts thereof shall be of sufficient strength to support all dead, live and lateral loads without exceeding the working stresses permitted for the materials of their construction in generally accepted good engineering practices.

2.6(3) Mechanical.

a. A centralized heating system capable of maintaining a minimum temperature of 78° F. shall be provided. Unit or space heaters which consume oxygen from areas which may be occupied or are capable of causing injury or burns are prohibited.

All pressure vessels, fired and unfired, shall comply with the rules of the state bureau of labor.

b. Ventilation.

(1) Rooms which do not have outside windows and which are used by patients or nursing home personnel shall be provided with forced ventilation to change the air at least once every seven minutes.

(2) Kitchens and laundries which are located inside the home shall be ventilated by exhaust systems which will discharge the air above the main roof or fifty feet from any window. The air in the work spaces shall be exhausted at least once every seven minutes

with the greater part of the air being taken from the flatwork ironer and ranges.

c. Plumbing, drainage and water supply shall comply with all applicable local codes or applicable provisions of the state plumbing code.

Plumbing fixtures shall comply with all applicable local codes or the applicable provisions of the state plumbing code.

d. Gas piping shall be installed and appliances connected in accordance with the requirements of the company furnishing the gas, and the state fire marshal.

e. *Oxygen systems.* Where installed, the piping, outlets, manifolds, manifold rooms and storage rooms shall be in accordance with the requirements of the current edition of the N.F.P.A. Bulletin No. 565.

2.6(4) Electrical. The electrical system and equipment shall be in accordance with applicable local codes and regulations. Where such codes are not in effect, or where they do not cover special installations, the national electrical code shall govern.

2.6(5) Elevators and dumbwaiters. Where installed shall comply with the rules of the state bureau of labor.

2.6(6) Design details.

a. *Door width.* Three feet eight inches (three feet ten inches preferable) at all doors through which patients may traverse. Doors at least three feet wide will be permitted at individual toilets adjacent to patients' bedrooms.

b. No doors shall swing into the corridor except closet doors.

c. *Passenger elevators.* Platform size—not less than five feet four inches by eight feet. Door opening not less than three feet ten inches.

d. *Laundry chutes.* Two feet minimum inside diameter. Chute to be vented from the top to the atmosphere. Flushing ring, manually valved, to be provided at the top of the chute.

e. *Nurses' call system.* At least one call station in each patient room and toilet room.

(1) Corridor dome light over each patient room door.

(2) Signal light and buzzer at nurse's station, utility room and floor pantry.

f. Incinerators shall be of such design, construction and capacity to fulfill the needs of the home. The gases shall be carried to a point above the roof.

[Filed October 30, 1957]

CHAPTER 3

CARING FOR CHILDREN UNDER
TWENTY-ONE YEARS OF AGE**3.1(135C)T.X Definitions and applicability.**

3.1(1) A nursing home for children is a facility for those under twenty-one years of age who are physically and/or mentally handi-

capped, and others who are in need of nursing care.

3.1(2) The child care unit is an administrative entity of not more than thirty beds which is under the immediate observation and control of a qualified nurse.

3.1(3) Nursing homes which offer care for children shall provide facilities and staffing completely separate from those provided adult patients or residents. The children shall be completely segregated from adult patients or residents.

3.1(4) All nursing homes which offer care for children shall comply with the requirements of the nursing home Act; chapter 1, T.X, rules for nursing homes; chapter 2, T.X, construction standards for new nursing homes; and the fire regulations for nursing homes with the following modifications and additions.

3.2(135C)T.X Administrative policies.

3.2(1) All applicants for a license to operate a nursing home which will care for children shall appear upon request at the Iowa state department of health for the purposes of reviewing their proposed operational programs, the qualifications of the operator and other personnel, and to consider with the health department the rules pertaining to the operation and construction of a nursing home for children.

3.2(2) A policy and procedure manual shall be prepared by each facility providing nursing care for children. The manual shall outline the duties of the nurses, attendants, and other personnel. It shall also include the requirements for admission and the provisions for discharge of the patient.

3.2(3) A utilization review plan should be provided to review medical necessity of admissions, duration of stays, professional services, and transfer to hospitals or other health care facilities.

3.3(135C)T.X Medical care policies.

3.3(1) The medical services shall be under the guidance of a qualified physician licensed in Iowa and preferably experienced in pediatrics or neurology. He shall be responsible for direct care of patients who do not have their own private physician.

3.3(2) Prior to admission, each patient shall have a dental examination and a complete examination, including appropriate immunizations and a skin test for tuberculosis. Patients shall have a semiannual dental examination and an annual physical examination. Each patient shall be seen as frequently as necessary by a physician but at no less than three month intervals.

3.3(3) A program of care shall be developed and recorded for each individual patient in accordance with his needs and potentials as outlined by a physician licensed in Iowa.

3.3(4) Children requiring hospital care shall be moved from the home immediately.

3.4(135C)T.X Nurse staffing for care units.

3.4(1) The following nursing staff requirements shall apply to the children's unit only. The staff of children's nursing units shall be exclusive of nursing personnel in all other units. Facilities admitting children under twenty-one years of age shall have separate units not to exceed thirty beds.

3.4(2) Each unit shall have a registered nurse licensed in Iowa in charge. The nurse shall be employed full time and the duty hours shall fall between the hours of 7 a.m. and 7 p.m. A qualified registered nurse or licensed practical nurse shall be employed on each of the three shifts in each of the thirty-bed pediatric units.

3.4(3) All nursing personnel should receive instruction in pediatric nursing. There is need of a continual in-service educational program appropriate for all levels of personnel.

3.4(4) There shall be adequate numbers of additional nursing personnel on duty at all times to provide proper care to patients such as feeding, frequent change of position, careful watchfulness to prevent injury, frequent diapering and bathing, and other nursing care responsibilities.

3.5(135C)T.X Nursing care.

3.5(1) Baths and shampoos shall be given as often as necessary. Teeth shall be brushed three times daily for those unable to do so themselves.

3.5(2) Changes of clothing shall be provided daily, and as many more times as needed to keep the children clean.

3.5(3) Haircuts shall be provided as needed.

3.5(4) Appropriate attention shall be given to fingernails and toenails.

3.5(5) Skin care shall be given to prevent pressure sores, heat rashes, or other skin breakdown. Each child shall be checked as frequently as deemed necessary.

3.5(6) Appropriate and safe padding of bed or other equipment shall be provided as needed to prevent injury.

3.5(7) Each child shall be taken out of his bed at least twice daily, unless otherwise indicated.

3.5(8) Each child, unless it is contraindicated, shall be removed from his bed and held or placed in a chair for all feedings.

3.5(9) Each child shall be encouraged to adopt food habits as near as possible to that of normal children. Gavage feedings (introduction of food into the stomach by a tube) shall not be given unless ordered in writing by a physician.

3.5 (10) Each child shall be weighed on admission and at least once a month thereafter.

3.5 (11) Restraints shall not be used except in an emergency. These shall be applied only on the written order of the attending physician. Patients who are restrained shall be protected from the physical and mental abuse of other patients.

3.6(135C)T.X Other services.

3.6(1) When appropriate there shall be a minimum of two supervised activity periods per day of a duration appropriate for the individual children. Trained volunteers may be used for this supervision. Helpless children shall be protected from active children during play periods.

3.6(2) Services of a registered physical therapist and a teacher, appropriately certified by the department of public instruction, shall be made available to those children who can benefit from such services. The registered physical therapist and certified teacher may be public employees or employed by the nursing home.

3.6(3) Each child shall be taught, when possible, personal hygiene, oral hygiene, toilet training, and other self-help skills.

3.6(4) Separate facilities should be made available for normal impressionable children.

3.7(135C)T.X Patient records. There shall be compliance with the requirements of chapter 1, T.X and, in addition, a record of immunizations and past acquired communicable diseases shall be maintained for each patient.

3.8(135C)T.X Food service.

3.8(1) Service.

a. The food served to the children shall be adequate to meet their needs and shall conform to the U. S. Department of Agriculture Handbook No. 16, Planning Food for Institutions.

b. A recommended reference guide for meal planning is the Simplified Diet Manual by the Nutrition Service of the Iowa state department of health and the Iowa Dietetic Association, published by the Iowa State University Press.

c. Modified diets shall be served as ordered by a physician.

d. The meals shall be served in an attractive manner, in amounts and forms suitable for children, and in accordance with any impairment which might affect the ability of the patient to handle the food.

(1) *Table service.* The dining area shall be clean and attractive. Tables shall be thoroughly cleaned after each meal service.

(2) *Tray service.* Trays shall be of a quality which will not deteriorate under hot water or mechanical dishwashing. Dishes shall be of durable china or plastic, free from chips, cracks, or stains.

e. At least three meals per day shall be served with a minimum of ten hours between breakfast and the evening meal. The follow-

ing low cost food plan shows quantities of food as purchased for one person for seven days at ages specified.

FOOD GROUPS	Age	Age	Age	Age
	Range	Range	Range	Range
	2-6 Yrs.	7-12 Yrs.	13-20 Years	13-20 Years
			Girls	Boys
Leafy Green and Yellow Veg. - lbs.	1¾	3	3	3½-4
Citrus Fruit				
Tomatoes - lbs.	1¾	2½	2¾	3-3½
Potatoes, Sweet				
Potatoes - lbs.	1-1½	2	2¾	3-4
Other Fruits and Vegetables - lbs.	1½	3	3½	3-4
Milk - equivalent - qts.	5½	6-7	6-7	7
Meat, Poultry and Fish - lbs.	¾-1½	3	3½	4-4½
Eggs, number	6	7	7	7
Dry Beans, Peas, and Nuts - lbs.		1¼	1½	3
Flour, Equivalent - lbs.	1¼-1¾	2+	2¾	4
Fats and Oils - lbs.	½-¾	½-¾	¾-1	1-1½
Sugar Syrups, Preserves - lbs.	½-¾	¾-1	1	1-1½

f. A formula preparation section with adequate work space shall be provided in the kitchen. This area shall contain a lavatory supplied with hot and cold water, soap dispenser and disposable toweling.

3.9(135C)T.X Buildings and Grounds. All nursing homes caring for children shall comply with the requirements of chapter 2, T.X, with the following modifications and additions.

3.9(1) Bathrooms.

a. If centralized toilets are provided, there shall be a minimum of one lavatory and one water closet for each five children and one bathtub for each eight children. One bathtub may be replaced by one shower in each nursing unit. The fixtures shall be of proper design and installed so as to satisfactorily serve the type of children who will be using them. One of the water closet enclosures in each toilet room should be at least five feet by six feet to permit toilet training for those in wheel chairs, on crutches, or who are otherwise disabled.

b. There shall be separate toilet and bathing facilities on each floor for boys and girls.

c. Each nursing unit shall have provisions for bedpan handling and sterilization.

3.9(2) Play area.

a. There shall be an indoor play area for all children. This area shall be in a separate room from the bedrooms. Dining and day room facilities may be combined for use as a play area. If these facilities are separate rooms, the square footage of each shall be twenty-five square feet per bed for seventy-five percent of the beds. If these rooms are combined, the square footage required shall be

forty square feet per bed for seventy-five percent of the beds. When these facilities are combined or adjacent, they provide more room for recreational and other group centered activities.

b. Safe and easily cleanable play pens shall be provided for children who can use them. Wooden play pens shall not be used.

c. Washable toys and other developmental equipment shall be provided and shall be of a safe nature and easily cleanable.

d. A fenced outdoor recreational area shall be provided. Seventy-five square feet per bed is required per patient in the outdoor area. Equipment for both the indoor and outdoor areas must be appropriate for all patients. A responsible person must supervise the patients in these areas at all times.

3.9(3) *Bedrooms.*

a. No patients' room shall contain more than six beds, nor have beds more than three deep from an outside wall. Not more than two beds per patient room is desirable.

b. An area of eighty square feet per bed shall be supplied in multiple bedrooms and one hundred square feet in single bedrooms. Cribs shall be considered as beds.

c. The design of the unit shall be such that close observation of patients is possible at all times through clear glazing located between the corridor and patient room or in some other acceptable manner.

d. Children shall have individual beds.

e. Beds and cribs shall be of safe and cleanable standard hospital or dormitory construction. Each patient shall have a bed or crib appropriate to his individual needs. The type of bed will depend largely on his mental functions and physical abilities as well as on his age and size. Each patient shall have an individualized and accessible storage area for personal belongings. Storage may be in drawers built into the bed or bedside tables.

f. There shall be separate bedrooms for boys and for girls over five years of age.

g. At least two double rooms with private toilets shall be provided in each thirty-bed unit for purposes of medical isolation or incompatibility with other patients in the home.

h. No patients' rooms shall be located on any floor which is below grade.

i. Each bedroom shall contain hand-washing facilities.

3.9(4) An examination and treatment room shall be provided.

3.9(5) Architectural barriers that would restrict the free movement and use of facilities shall be eliminated wherever possible.

These rules are intended to implement chapter 135C of the Code.

[Filed October 30, 1957;
amended December 14, 1965]

CHAPTER 4 CUSTODIAL HOMES

4.1(135C)T.X Admission policies.

4.1(1) Refer to 1.2(1)T.X.

4.1(2) No person under twenty-one years of age shall be admitted to a home licensed under this Act.

4.2(135C)T.X Administration and staff policies.

4.2(1) Refer to 1.3(1)T.X.

4.2(2) Refer to 1.3(3)T.X.

4.2(3) Refer to 1.3(4)T.X.

4.2(4) There shall be a sufficient staff of qualified and responsible persons of suitable age, character, temperament and ability to function in their appointed capacities to provide proper and adequate care for the residents and the premises.

4.2(5) The staff engaged in the supervision of residents must be of sufficient number to provide twenty-four hour service according to the needs of the residents.

4.3(135C)T.X Personnel.

4.3(1) *General qualifications.*

a. The person or persons employed to supervise the care of residents shall be capable of selecting and directing personnel and residents. It is recommended that such person has had previous experience with elderly people.

b. All persons employed in a custodial home shall be at least eighteen years of age and not more than seventy years of age.

c. Refer to 1.4(1)"h" T.X.

d. Refer to 1.4(1)"j" T.X.

e. Refer to 1.4(1)"e" T.X.

4.3(2) *Medical supervision.*

a. Each resident shall have a complete physical examination immediately before admission to the home or within a week after admission. A record of the examination, signed by the physician making the examination, shall be kept on file in the home.

b. Each resident shall be allowed free choice of a physician.

c. Arrangements shall be made with a qualified physician to be available for emergencies in the home in case the resident's own physician cannot be reached.

d. Each resident shall be visited by or shall visit his physician at least once every year.

e. Any specific order given by a physician for the treatment, medication or care of any resident shall be in writing.

4.4(135C)T.X Resident policies.

4.4(1) *Resident care and personal service.*

a. Beds shall be made daily and adjusted as necessary. A complete change of linen shall be made at least once a week and more often if necessary.

b. Each resident shall be offered sufficient care to maintain personal cleanliness. The care shall include baths, attention to hair, skin, nails, oral hygiene, clothing and physical surroundings.

c. Residents shall have clean clothing as needed to present a decent appearance, to be free of odors and be comfortable.

d. Temporary nursing service shall be provided the residents for short illnesses and minor ailments. A resident requiring bed care or special nursing service for more than seventy-two hours shall be transferred to a nursing home or hospital unless a physician indicates in writing that the resident may be cared for satisfactorily in present accommodations. The maximum time a resident may continue under bed care or special nursing services is fourteen days.

e. Residents should be encouraged to leave their rooms and make use of the recreational facilities of the home.

f. Medications and treatments ordered by the physician shall be administered or supervised by the personnel employed to supervise residents' care.

g. Residents in the home shall be required to bathe at least once each week. Tubs and showers shall be cleansed and disinfected following each use.

4.4(2) Restraints. Residents shall not be kept behind locked doors. If it becomes necessary to temporarily confine a resident in his room, a half door or screen door with a hook fastener shall be used.

4.4(3) Resident privileges.

a. The manager shall not regulate or control the personal life of a resident beyond reasonable requirements for adherence to meal schedules, bedtime hours and other elements of group living.

b. Residents shall be allowed individual freedom to attend the churches of their choice, movies, go for walks, and engage in other outside activities so long as they are physically and mentally able.

c. Visiting shall be allowed, friends or relatives shall have access to the premises for visiting purposes. Reasonable visiting hours may be established. If there are established visiting hours, the hours shall be posted in a conspicuous place.

d. A resident's pastor shall be permitted to visit him at all reasonable hours. Privacy for consultation, communion or interviews with other professional people shall be the privilege of every resident.

e. There shall be a written agreement between the manager and resident, relative to the cost of care. The agreement shall be signed by both parties or their legal representatives.

f. Lounges or sitting rooms shall be kept open and accessible to all residents at all reasonable times and care shall be taken to keep rooms in orderly and comfortable condition.

4.5(135C)T.X Records.

4.5(1) Personnel. Refer to 1.6(1)T.X.

4.5(2) Refer to 1.6(2)T.X.

4.5(3) Resident records.

a. *Admission records.* The manager shall keep a permanent admission record on all residents admitted to the home. The following information shall be recorded:

Date of admission and discharge

Name and address of resident

Birthplace, marital status of resident

Financial responsibility

Church affiliation

Physician's name, telephone number and address

Undertaker's name, telephone number and address

Name and address of nearest relative or friend

Name and address and telephone number of person to be notified in emergency

Admission diagnosis—Discharge diagnosis

b. Refer to 1.6(3) "b" T.X.

c. *Doctor's orders.* All orders for treatments and medication shall be written by the physician. No treatments or medicines shall be given without a physician's order.

d. *Resident treatment records.* In case of temporary illness a record shall be kept. The record shall include the following information:

Date, time and dosage of each medication administered

Date, time of all treatments and dressings

Date, time of physician's visit

Record of all pertinent factors pertaining to the resident's condition

Record of all accidents to the resident in the home

Date, time of discharge or death

e. Refer to 1.6(3) "f" T.X.

4.5(4) Reports.

a. Refer to 1.6(4) "a" T.X.

b. Refer to 1.6(4) "b" T.X.

c. The custodial home license shall be surrendered to the department on change of ownership, name or location of the custodial home, death of the licensee, or in case of ceasing to operate as a custodial home.

d. Change from a licensed custodial home to a nursing home shall be made by return of the custodial home license to the department and filing an application for a nursing home license within the licensing year.

e. Refer to 1.6(4) "e" T.X.

4.6(135C)T.X Furnishings and equipment.

4.6(1) Communication.

a. Every home shall have at least one telephone within the building and such additional telephones as are required to summon help promptly in case of an emergency. A telephone shall be provided for the use of residents in the home.

b. Refer to 1.7(1) "b" T.X.

4.6(2) Bedrooms.

a. Each resident shall be provided with a bed. A standard single or twin bed, substan-

tially constructed and in good repair. Rollaway beds, metal cots or folding beds are not acceptable. Beds shall have headboards and footboards.

b. Refer to 1.7(2) "b" T.X.

c. Each resident shall have a bedside table or its equivalent with compartments or drawers to accommodate personal possessions.

d. There shall be a comfortable chair, either a rocking chair or armchair, per resident bed.

e. There shall be a chest of drawers or a bureau with drawers for the resident's clothing. In multiple rooms, drawer space will be assigned each resident.

f. There shall be a wardrobe or a closet in each resident's room. In multiple rooms, closet or wardrobe space shall be assigned each resident.

g. There shall be a call system or at least one call bell provided for each resident's room and bathroom.

h. Reading lamps or bed lamps are recommended for each resident's bed.

i. Bed screens or curtains shall be supplied in semiprivate or multibed rooms to insure privacy for resident as desired.

j. Refer to 1.7(2) "j" T.X.

k. Refer to 1.7(2) "k" T.X.

4.6(3) Bath and toilet facilities.

a. *Toilet facilities.* Toilet and bath facilities shall be provided in number ample for use according to number of residents of both sexes, and personnel of the institution. Minimum requirements shall be one lavatory, one toilet and one shower or tub for each ten persons, or fraction thereof, of each sex. Grab bars shall be provided at all toilets and bathtubs.

b. In custodial homes where the total occupancy of family, employees and residents is six or less, one toilet and one tub or shower shall be the acceptable minimum requirement.

c. Toilet and bathing facilities shall not open directly onto food-preparation areas nor shall be located in such manner that residents must pass through food-preparation areas to reach the bathroom.

4.6(4) Refer to 1.7(4) T.X.

4.6(5) Living room.

a. A living room or parlor shall be provided for the exclusive use of residents and their visitors and may be used for recreational activities.

b. Refer to 1.7(5) "c" T.X.

c. Refer to 1.7(5) "d" T.X.

4.6(6) Dining room.

a. A dining room shall be provided and it shall be maintained in a satisfactory manner.

b. Residents shall be encouraged to eat in the dining room.

c. Refer to 1.7(6) "c" T.X.

d. Refer to 1.7(6) "d" T.X.

e. Refer to 1.7(6) "e" T.X.

4.6(7) Linen supply and storage.

a. Refer to 1.7(8) "a" T.X.

b. A supply of linen shall be available

so that each resident shall have at least two clean washcloths, two hand towels, two bath towels, two pillow cases and two sheets each week.

c. A sufficient supply of bed blankets shall be available to keep the residents clean and comfortable.

4.6(8) First-aid and sickroom supplies.

a. Equipment and supplies for first aid shall be available at all times.

b. Sickroom supplies shall be available so that bed care can be given to ill residents whenever necessary.

4.7(135C) T.X Drug storage.

4.7(1) A cabinet with a lock shall be provided and used for the storage of all drugs.

4.7(2) The drug cabinet shall be in an area that is convenient for use by the attendants at all times. The drug cabinet shall not be in the bathroom.

4.7(3) Biologicals and other medications requiring refrigeration shall be kept in a refrigerator. The kitchen refrigerator may be used for this purpose if drugs are stored on a specific shelf and are plainly labeled with the resident's name.

4.7(4) No medications, prescriptions included, shall be dispensed to a resident without the written order signed by the attending physician.

4.7(5) No medicine prescribed for one resident may be administered to or allowed in the possession of another resident.

4.7(6) When a resident is discharged or leaves the home, the unused prescription shall be sent with him or a responsible agent.

4.7(7) If a resident expires, the unused prescription shall be returned to the physician or destroyed in accordance with the physician's instruction.

4.7(8) Poisons and prescription medications for external use shall be kept in a locked cabinet and separate from other medications.

4.7(9) Drug labeling.

a. All medications prescribed shall be labeled. The label of each patient's individual medication container shall clearly indicate the patient's full name, name of the medical practitioner, prescription number, name and strength of drug, dosage, directions for use, and date of issue, name, address and telephone number of the pharmacy or medical practitioner issuing the drug.

b. Medication containers having soiled, damaged, illegible, or makeshift labels shall be returned to the issuing pharmacy or medical practitioner for relabeling or disposal. Medications in unlabeled containers shall be destroyed.

c. The medications of each patient shall be kept or stored in the originally received containers.

4.7(10) The State Board of Pharmacy Examiners, State Capitol Building, Des Moines, Iowa, shall be notified for instruction concerning disposal of unused narcotics prescribed for patients who have deceased.

4.7(11) Bulk supplies of prescription drugs shall not be kept in a custodial home unless a licensed pharmacy is established in the custodial home under the direct supervision and control of a pharmacist.

4.7(12) A responsible person designated by the owner or administrator shall administer all medications. This person shall have been trained to perform this task and she shall have knowledge of the medications as to the purpose for which they are given, recommended dosage, contraindications and reactions. The work of this person shall be reviewed monthly by a licensed nurse or medical practitioner, acting as a consultant, and a written record shall be kept of the review. The person assigned to the responsibility of medication administration must complete the procedure by personally preparing a unit dose, administering and recording the medication given. Where the unit dose is prepared by a pharmacist or under the direct supervision of a pharmacist, the medication may be administered and recorded by another person. A written record of medications administered shall be made by the person administering the medication. Said recording of medications may be transferred to the resident's permanent file by another individual, but the original shall be kept on file for no less than thirty days. The actual act of swallowing oral medications shall be observed personally by the individual responsible for administering medications. Any unusual drug reaction shall be reported to the medical practitioner who prescribed the drug at once.

4.7(13) Medications not specifically limited as to time or number of doses when ordered shall be automatically stopped in accordance with a written policy developed by the custodial home and the attending medical practitioner.

4.8(135C)T.X Food and food service.

4.8(1) Refer to 1.10(1)T.X.

4.8(2) Refer to 1.10(2)T.X.

4.8(3) Refer to 1.10(3)T.X.

4.8(4) Residents' meals shall be served in an attractive manner and all meals should have appetite appeal.

a. Refer to 1.10(4) "a" T.X.

b. Refer to 1.10(4) "b" T.X.

c. Refer to 1.10(4) "c" T.X.

d. Refer to 1.10(4) "d" T.X.

4.8(5) Mashed or strained vegetables and ground meats shall be prepared for those residents who have mastication or digestion difficulty.

4.8(6) Between meal snacks and nourishment shall be available when ordered by the physician for residents who are undernourished or who have poor appetites.

4.8(7) Refer to 1.10(7)T.X.

4.8(8) Refer to 1.10(8)T.X.

4.8(9) Refer to 1.10(9)T.X.

4.9(135C)T.X Family and employee accommodations.

4.9(1) Refer to 1.11(1)T.X.

4.9(2) Operators' or employees' small children shall not be allowed into the area where custodial home patients are housed or in service areas.

4.9(3) Refer to 1.11(3)T.X.

4.9(4) In custodial homes where the total occupancy of family, employees, and residents is six or less, one toilet and one tub or shower shall be the minimum requirement.

4.10(135C)T.X Sanitation. Refer to 1.12(135C)T.X.

These rules are intended to implement chapter 135C of the Code.

[Filed October 30, 1957; amended July 8, 1969]

CHAPTER 5

DESIGN AND CONSTRUCTION OF NEW CUSTODIAL HOMES

5.1(135C)T.X Refer to 2.1(135C)T.X.

5.2(135C)T.X Refer to 2.2(135C)T.X.

5.3(135C)T.X Refer to chapter 1, T.X.

5.4(135C)T.X General requirements.

5.4(1) Refer to 2.4(1)T.X.

5.4(2) Refer to 2.4(3)T.X.

5.4(3) Refer to 2.4(4)T.X.

5.4(4) When the conversion of a building for custodial home use is contemplated, the proposal shall be submitted to the department for review and approval.

5.5(135C)T.X Elements of minimum design.

5.5(1) Various schemes of design may be used for this type of institution. The schemes may vary from single bedrooms, to apartments of one, two or more rooms, to individual cottages. The needs of the individual occupants to be accommodated and the needs and mode of operation of each individual home must be taken into consideration in the ultimate design. The following items shall be the minimum requirements for all schemes of design:

5.5(2) Administration department.

Business office²

Administrator's office²

5.5(3) Ancillary facilities.

Living room²

Recreation room²

Facilities for religious services²

Library¹

Dining room—Provide at least fifteen square feet per person. Dining room may be reduced in size if home is composed of apartments and cooking and dining facilities provided in each apartment.

5.5(4) Bedrooms.

a. No bedroom shall have more than six beds, not more than three beds deep from out-

¹Desirable.

²May be combined.

side wall. It is desirable that married couples be accommodated in semiprivate rooms and that single persons be accommodated in private rooms.

b. Each bedroom shall have a lavatory (except in apartment schemes or cottages).

c. Individual room toilets are recommended. A toilet shall be provided in each apartment or cottage.

d. Single bedrooms shall be at least one hundred square feet in size and multiple bedrooms eighty square feet per bed.

e. All corridors used by residents shall be at least seven feet wide. Handrails shall be provided.

5.5(5) Medical isolation. A room containing from one to six beds, at a ratio of one bed for every twenty residents, shall be set up for medical isolation. [See 4.4(1) "d" T.X] The room shall be of size to provide a minimum of eighty square feet per bed.

5.5(6) Toilet facilities. If centralized toilets are provided, a toilet room for each sex at a ratio of one water closet to each eight beds will be required. Appropriate grab bars shall be provided at each water closet. It is recommended that an enclosure at least five feet by six feet be provided to permit toilet training.

5.5(7) Bathing facilities. A separate bathroom for each sex containing at least one bathtub with appropriate grab bars or one shower, with appropriate grab bars, shall be provided. A ratio of one bathtub or one shower for each ten beds is required.

5.5(8) Service department.

Kitchen

Dishwashing facilities

Refrigeration facilities

Garbage handling and storage

Personnel dining facilities

Housekeeping facilities

(1) Clean linen facilities

(2) Soiled linen facilities

Heating plant

Employee locker room and toilet

General storage at least fifteen square feet per bed and to be concentrated in one area.

5.6(135C)T.X Construction standards. Refer to 2.6(135C)T.X.

[Filed October 30, 1957]

TITLE XI

MOBILE HOME PARKS

CHAPTER 1

LICENSING AND RESTRICTIONS

1.1(135D)T.XI Authority.

1.1(1) Under the provisions of section 135D.16 of the Code, the following rules governing the licensing and regulation of mobile home parks have been promulgated.

1.2(135D)T.XI Definitions.

1.2(1) "Department" is the state department of health which is the legally designated

authority providing for licensing, inspection, and regulation of mobile homes and mobile home parks.

1.2(2) "Independent mobile home" is a mobile home which has a water closet and a bathtub or shower.

1.2(3) "Dependent mobile home" is a mobile home which does not have a water closet, nor a bathtub or shower.

1.2(4) "Mobile home space" is a plot of ground within a mobile home park designated for the accommodation of one mobile home.

1.2(5) "Independent mobile home space" is a mobile home space which has individual water and sewer connections available.

1.2(6) "Dependent mobile home space" is a mobile home space which does not have individual water and sewer connections available.

1.2(7) "Community building" is a building housing toilet and bathing facilities for men and women and a slop-water sink.

1.2(8) "Existing installations" are those installations which were constructed before January 1, 1954.

1.2(9) "New installations" are those which are proposed for construction after the effective date of these rules.

1.3(135D)T.XI License.

1.3(1) The application for the first annual license required for each park established within the state shall be made, in triplicate, on the form "Application for a License to Operate a Mobile Home Park". The application for a license form, with the appropriate annual license fee, shall be submitted to the department.

There also shall be included, with each application for the first annual license submitted, an application for a permit to construct a mobile home park and plans and specifications for the proposed park, as specified in 1.4(135D)T.XI.

1.3(2) The application for the annual license required for each subsequent year of operation shall be made, in triplicate, on the form "Application for Renewal of License to Operate a Mobile Home Park". The application forms, with the appropriate annual license fee, shall be submitted to the department.

Each application for renewal of license to operate a mobile home park throughout the year shall be submitted to the department on or before January 1 of each year. Each application for renewal of license to operate a park during the period May 1 to October 1 shall be submitted to the department on or before May 1 of each year.

1.3(3) Each application for a license, or application for renewal of license, relating to a mobile home park located within a municipality shall contain a certification of the local board of health (mayor, council, and health

physician) that the park complies with municipal ordinances, codes, and other local regulatory measures, applicable thereto and not in conflict with the statute and these rules, before being submitted to the department.

1.4(135D)T.XI Permit.

1.4(1) The application for the permit required before constructing, reconstructing, or making alterations to the sanitary facilities in a park shall be made, in triplicate, to the department on the form "Application for a Permit to Construct, Reconstruct, or Remodel a Mobile Home Park." Plans and specifications for proposed new construction of, or alterations on, the water supply system, sewerage system, community building facilities, refuse disposal, and lighting in the park are required, and shall be attached to the application for a permit.

Plans and specifications relating to constructing, reconstructing, or making alterations to the sanitary facilities in all parks where a private water supply or a private sewage disposal system is used, or proposed for use, shall be prepared by an engineer registered under Iowa statute. This requirement may be waived for small parks at the discretion of the department.

If changes are proposed in the plans and specifications after a permit has been issued, a supplemental permit shall be obtained.

1.4(2) Each application for a permit relating to a park located within a municipality shall contain a certification of the local board of health (mayor, council, and health physi-

cian) that the construction, reconstruction, or alterations are in compliance with existing municipal ordinances, codes, or other local regulatory measures, applicable thereto and not in conflict with the statute and these rules, before being submitted to the department.

1.5(135D)T.XI Park site.

1.5(1) Each park shall be adequately lighted at night, particularly all walkways between the mobile homes and any community building or privies provided, with not less than twenty-five watt bulbs located at one hundred-foot-intervals or equivalent lighting.

1.5(2) The number of mobile homes permitted in the park shall not exceed the number of spaces which can be serviced by the sanitary facilities in the park, and for which a license was issued.

1.5(3) Plans and specifications for the construction, reconstruction, or remodeling of swimming pools, wading pools, or bathhouses used in connection with such pools shall be submitted to the department as specified in 1.4(135D)T.XI. The design, construction, operation, and maintenance of such facilities shall be based on the published "Policies Governing Design, Construction, Maintenance, and Operation of Swimming Pools" issued by the department.

1.6(135D)T.XI Toilet and washing facilities.

1.6(1) All plumbing fixtures and systems hereafter installed shall conform to local ordinances, or the state plumbing code when no local ordinance is in effect, and to these rules.

TABLE 1
Water Closet, Urinal, Lavatory, and Bathing Fixture Requirement Schedules for Community Buildings

NUMBER OF DEPENDENT MOBILE HOMES	MEN			WOMEN		
	WATER CLOSET	LAVATORY	BATHTUB OR SHOWER	WATER CLOSET	LAVATORY	BATHTUB OR SHOWER
1-10.....	1	1	1	1	1	1
11-20.....	2	2	1	2	2	1
21-30.....	3	3	2	3	3	2
31-40.....	4	4	2	4	4	2
41-50.....	5	5	3	5	5	3
51-60.....	6	6	3	6	6	3
61-70.....	7	7	4	7	7	4
71-80.....	8	8	4	8	8	4
81-90.....	9	9	5	9	9	5
91-100.....	10	10	5	10	10	5
101-110.....	11	11	6	11	11	6
111-120.....	12	12	6	12	12	6
121-130.....	13	13	7	13	13	7
131-140.....	14	14	7	14	14	7
141-150.....	15	15	8	15	15	8

When sanitary privies are furnished for use they shall be provided on the basis of one privy for each sex for each 10 mobile homes.

Urinals may be substituted for not more than one-third of the water closet fixtures for men. Each 18 inches of horizontal length of trough urinal shall be accepted in lieu of a single or separate urinal, i.e., 18 inches equals one, 36 inches equals two, 54 inches equals three, and 72 inches equals four. Trough urinals are prohibited in new construction.

1.6(2) A community building or buildings containing toilet and washing facilities shall be provided in each mobile home park, except when such facilities are provided for each

mobile home space, or when only independent mobile homes are accepted in the park and individual water and sewer connections are available at each space harboring an independ-

ent mobile home, or when sanitary privies and leaching pits are used for waste disposal.

1.6(3) Each community building shall be conveniently located, well constructed with washable interior walls, well lighted, have adequate ventilation, all openings to toilet rooms effectively screened, and floors of concrete or other impervious material.

A general illumination level of at least five foot-candles shall be maintained in each community building.

Each room housing toilet or laundry facilities shall be provided at least one window or a vent to the outside atmosphere. In new installations, window area at a ratio of ten percent of the floor area, with fifty percent of the total window area openable, or mechanical ventilation capable of making at least one air change every five minutes, shall be provided.

In new installations, all openings to community buildings shall be effectively screened. Solid doors opening outward and equipped with mechanical closing devices shall meet the requirements for screen doors.

A sanitary method of disposal of mop water shall be provided. In new installations, the floors shall be sloped to floor drains, and shall have concrete curbing or other impervious material extending at least six inches above the floor and forming a cove at the junction of the floor and side wall.

1.6(4) Where toilet and washing facilities are provided, each toilet room shall contain at least one water closet and one lavatory. Where separate facilities for males and females are provided, they shall be plainly marked by appropriate signs and shall be separated by a sound resistant wall if located in the same building. In new installations, separate water closet, lavatory, and bathing facilities shall be provided for males and females in accordance with Table 1, T.XI.

In new installations, each water closet shall be in a separate compartment, with all partitions constructed of washable materials and all partition supports extending to the floor constructed of impervious materials.

In new installations, compartments shall be provided for bath and shower facilities. An individual dressing compartment not less than two and one-half by three feet in plan, so arranged to assure privacy, shall be provided in combination with and affixed to each shower compartment installed for women. The floor of such compartment shall be waterproof and elevated at least three inches above the floor of the shower stall, or a six-inch curbing provided, separating the shower and dressing compartments. Mats, grids, and walkways made

of wood, cloth, or other absorbent materials shall not be furnished for use in bath sections of community buildings.

A sanitary method of disposal of slop shall be provided. Unless waived, in new installations a slop sink supplied with hot and cold running water shall be provided in each community building, and such sink shall not be located in the laundry room.

An adequate supply of hot and cold running water shall be available in community buildings whenever needed by the occupants of the mobile home park.

In new installations, laundry facilities provided shall be separated by full partitions or walls from the toilet rooms.

1.6(5) When facilities are provided at each individual mobile home space, the building housing the facilities shall be located on the space served, be constructed in accordance with 1.6(3) T.XI, contain a water closet, lavatory, shower with floor drain or tub, and be provided with an adequate supply of hot and cold water.

1.6(6) The interior of each community or individual space building, including all fixtures and equipment therein, shall be maintained in good repair and in a sanitary condition at all times. All plumbing fixtures shall be cleaned, such that all dirt and other visible foreign matter are removed, at least once each day. All waste paper and similar material shall be placed in suitable containers, and shall not be allowed to accumulate on the floor. All floors shall be swept and scrubbed at intervals sufficient to maintain a clean and sanitary condition. There shall be no evidence of insect or rodent harborages.

Such buildings shall have heating facilities capable of maintaining a temperature of at least 70° F. in cold weather. Gas-fired water or space heaters shall be vented to the outside.

The use of common drinking cups and common towels in the community building is prohibited.

1.7(135D) T.XI Water supply.

1.7(1) An adequate supply of safe potable water shall be provided in each mobile home park. Where a public water supply is available, abutting the property, such water shall be used.

1.7(2) Every new well shall be located at the highest favorable point practicable on the premises, and as far removed from any possible sources of pollution as the layout of the premises and the surroundings permit. Minimum distances between new wells and sources of pollution shall be maintained as shown in Table 2, T.XI.

TABLE 2
Minimum Distances Between Wells and Sources of Pollution

SOURCE OF POLLUTION	Distance in Feet
Cesspool	100
Filter bed, soil absorption field seepage (leaching) pit, earth pit privy, or similar disposal unit	75
Sewer of tightly jointed tile or its equivalent, septic tank, sewer connected foundation drain, impervious concrete vault privy, or barnyard	50
Cast iron sewer with leaded or mechanical joints, independent clear water drain, or cistern	10
Cast iron sewer with leaded joints and encased in 6 inches of concrete	5
Pumphouse floor drain of cast iron pipe with leaded joints and draining to ground surface	2

Definitions:

Cesspool—used for disposal of raw sewage.
Seepage (leaching) pit—used for disposal of settled sewage, filter overflow, kitchen laundry, or similar wastes. Notes: The same distances apply to the suction pipe of a well, unless surrounded by a protective casing.

Existing wells will be considered as properly located when they meet the above minimum requirements with respect to sources of pollution. The above distances apply to clay and loam soils. Greater distances must be maintained in sand and gravel formations. For well deriving water from creviced limestone formations, see 1.7(12)T.XI.

1.7(3) The upper terminal of all wells shall be watertight. Well platforms shall be of watertight reinforced concrete of a minimum thickness of six inches or equivalent watertight construction, with all openings constructed with raised shoulders to exclude surface wash or other foreign material. Covers for such openings shall be of the overlapping type. The platform shall be sloped and satisfactory drainage to the ground surface provided. A watertight seal shall be provided for the annular space between the drop pipe and the casing.

1.7(4) In new installations, the upper surface of the well platform shall be at least six inches above the surrounding ground surface.

1.7(5) In new installations, the drop pipe opening through the well platform shall be formed, in drilled wells, by an extension of the well casing or, in bored or dug wells, by a length of iron pipe sleeve cast into the platform, of sufficient diameter to admit the pump cylinder. This casing extension or sleeve shall reach at least one inch above the platform, or higher if a flanged connection is used, for hand pumped wells; and at least six inches for power pump installations. Casings for power pump installations shall allow for a one-inch extension into the pump base. Well pits are prohibited in new installations. In existing installations, well pits will be accepted providing they are supplied with a gravity drain or a sump pump.

In new installations where a pump unit is not located over a well and the connecting pipe is under suction, that piping shall be encased in a protective conduit and buried at least five feet unless protected against freezing. If a buried suction line is located within ten feet of a sewer, the sewer shall be constructed of cast iron pipe with leaded joints. If the suction line is below the sewer, there shall be no joint in the suction pipe within ten feet of the sewer. An exposed suction pipe as in a basement room, shall be at least eighteen inches above the floor.

1.7(6) The casing or curbing of all new wells shall be watertight to a depth of ten feet,

and preferably twenty feet. New wells deriving water from aquifers below shattered limestone formations shall be constructed to exclude shallower waters. For additional information on proper well construction, see other publications of the department.

1.7(7) Storage reservoirs, hereafter installed, shall be located above ground-water level, and in such a location that surface and underground water flows away from the structure. All reservoirs shall be constructed of permanent, watertight material. Manhole covers shall be of the overlapping type. When the bottom of the reservoir is below the normal ground surface, the reservoir shall be located with respect to sources of contamination as specified for wells. Overflows and vents shall be turned downward and the opening covered with twenty-four mesh screen. Reservoir overflows and drains shall not be connected to a sanitary or storm sewer.

1.7(8) In new installations, the water supply pipes shall be of brass, copper, lead, cast iron, open hearth iron, wrought iron, or steel as specified in the state plumbing code.

In new installations, the water supply lines shall be separated horizontally from sanitary sewers by at least ten feet of undisturbed or compacted earth, except as specified below. When separated as above, the sewer lines may be constructed of cast iron, vitrified clay, concrete, cement-asbestos, or bituminized fibre sewer pipe, with tight approved and tested joints. When water and sewer lines cross, the water line shall be at least twelve inches above the top of the sewer line throughout a distance of ten feet horizontally, and no joints shall be made in the water line within this distance of ten feet.

In new installations, water and sewer lines may be laid in the same trench providing the bottom of the water line is laid at all points at least twelve inches above the top of the sewer line at its highest point, the water line is laid on a solid shelf excavated at one side of the common trench or on a solidly tamped backfill, the joints in the water line are kept at a minimum, and the sewer is constructed of

cast iron with leaded or mechanical joints and shown to be watertight by test. In cases where cast iron is not a suitable sewer material, vitrified clay or other durable and corrosion-resistant material may be used provided it is installed to remain watertight and root-proof. Where a water service stub and a sewer pipe stub of vitrified clay or concrete have heretofore been placed in the same trench from the mains to the curb or property line, a park sewer of the same material may be extended in the same trench with the water line.

In new installations, minimum pipe sizes for the park water mains shall be in accordance with Table 3, T.XI.

TABLE 3
Size of Water Pipe

Pipe Size (inches)	Mobile Homes Served
1	2— 10
1¼	11— 20
1½	21— 35
2	36— 50
2½	51—100
3	101—150
4	151—300

In new installations, the minimum size water pipe from the park mains to each mobile home space shall be one-half inch, and the space water outlets shall be separated from the sewer outlets by not less than five feet. Each mobile home space water outlet shall terminate above ground, shall be encased with concrete at least six inches thick and two feet deep unless otherwise protected, shall be provided with a control valve, shall be capped or otherwise protected when not in use, and shall be provided with a suitable flexible connection for attachment to the mobile home water line; and also shall be protected against freezing if the park is operated throughout the year. In new installations, control valves of the stop and waste type may be installed provided a horizontal separation of at least ten feet from any part of the sewer system is maintained, or if an approved system of watertight piping from the weep holes of the valves is installed to drain to a lower, protected level.

Sanitary precautions shall be taken in laying all water pipes. They shall be laid where they will not come in contact with sewage during the laying process.

In the design of the water distribution system, a sufficient number of fire hydrants or outlets shall be provided throughout the park at proper locations for fire protection.

The water supply system shall be so installed as to prevent backflow of contaminated water from appliances, fixtures, drains, and sewers; and shall not be connected with non-potable or questionable supplies.

1.7(9) Drinking fountains, when provided, shall be of the guarded, inclined jet type conforming to standards specified in local ordi-

nances or in the state plumbing code where not covered by local ordinance.

1.7(10) Wells, storage reservoirs, and water lines when first installed, or when repaired in such a manner that contamination may gain entrance, shall be disinfected with chlorine. Following such disinfection, the water shall be sampled and a satisfactory bacteriological quality determined before the water is used for drinking or culinary purposes. Until water of such satisfactory bacteriological quality is assured, all water used for drinking and culinary purposes shall be boiled.

1.7(11) The potable water supply derived from each private system shall be of satisfactory quality as determined by a sample collected at the time of the annual inspection.

1.7(12) If a sample collected from a properly located [as determined from Table 2, 1.7(2) T.XI] well supply shows the water to be bacterially unsafe at the time when the sample was taken, the supply may be disinfected and an additional sample collected. If disinfection fails to eliminate the contamination, continuous chlorination of the water supply shall be provided.

If samples collected from an existing well whose only known defect is improper location [as determined by Table 2, 1.7(2) T.XI] show a consistently satisfactory bacterial quality, as determined by at least three consecutive samples collected at monthly intervals, the supply may be approved with or without continuous chlorination provided. Nature and type of subsoil, actual distance from sources of pollution, and construction of the well will be given consideration in determining whether continuous chlorination of the supply will be necessary. If samples collected from an improperly located supply show the water to be bacterially unsafe, the system will not be approved for use unless continuous chlorination is provided. No permit will be issued for extension of an existing water supply to serve an addition to a park where the well is improperly located unless continuous chlorination is provided.

An existing well deriving water, or a new well planned to derive water, from a shallow creviced limestone formation will be approved only when properly located, the formation is overlain with soil or unconsolidated material to a depth of at least forty feet extending one-half mile from the well, and continuous chlorination is provided.

Only water with a nitrate nitrogen content of ten parts per million or less shall be furnished to infants. A water supply containing more than ten parts per million of nitrate nitrogen shall be placarded or posted stating the water shall not be used for infant feeding. The park operator shall notify all parents not to use the water for infant feeding.

1.7(13) Chlorinating equipment shall be maintained properly, and operated such that a minimum combined chlorine residual of 0.2 parts per million shall be maintained in the

distribution system at all times. Daily records shall be kept of the quantity of water used when known and of the amounts of chlorine used. These daily records shall be filed with the department at the end of each week.

1.7(14) All abandoned wells shall be properly filled to prevent contamination of water-bearing formations and to eliminate accident hazards. In filling dug or bored wells, as much of the curbing as possible shall be removed.

1.8(135D)T.XI Sewage disposal.

1.8(1) Disposal of sewage and other water carried wastes shall be into a municipal sewerage system when the sewer abuts the property or is otherwise available. In mobile home parks where such connections are not available, disposal shall be into a private system designed, constructed and operated in accordance with good sanitation practice to meet the requirements of the department. Plans and specifications for new construction shall be submitted as specified in 1.4(135D)T.XI.

1.8(2) The connection between the mobile home drain and the park sewer shall be made with a leakproof connector of durable, corrosion-resistant rubber or metal; flexible for a length of at least twenty-four inches and preferably throughout its length; attached at the inlet and outlet end with a water- and gas-tight joint; and constructed to pull apart in an emergency without serious damage to the mobile home piping or the park sewer.

It shall be the responsibility of the park operator to supervise the installation of the sewer connector. Flexible connectors shall be kept clean when not in use. Each sewer outlet shall be capped when not in use. There shall be no discharge of sewage or waste water from any mobile home onto the ground surface, nor shall there be any sewage odors from the sewer outlet.

1.8(3) In new installations, each space sewer lateral shall be connected to the sewer main by use of an appropriate Y fitting, with short T fittings prohibited; shall connect with a P trap located below the frost line; and then shall extend vertically to not less than four inches above grade, with the individual sewer outlets not less than three inches in diameter. Extensions through the ground shall be protected against frost heaving and damage by a concrete apron at ground level.

In new installations, the outlet risers, P trap, and one connecting length of lateral at each space shall be constructed of cast iron with leaded joints. The remaining new sewers and drainage lines shall be constructed as specified for building drains and sewers.

In new installations, cleanouts shall be provided separated horizontally from water supply pipes by at least ten feet of undisturbed or compacted earth, except as provided in 1.7(8)T.XI.

Changes in direction of new main sewer lines shall be with forty-five degree fittings. Each new sewer main or branch shall terminate in a stack extending at least nine feet above the ground level and provided with a cleanout. Stacks may be constructed of cast

iron, vitrified clay, concrete, cement asbestos, bituminized fibre, lead, or copper piping or tubing. Galvanized steel or wrought iron may be used above ground.

In new installations, cleanouts shall be provided at each second change in direction or at intervals of one hundred feet. Manholes may be substituted in lieu of cleanouts and stacks where a perforated cover will not create an odor nuisance or explosion hazard, and where surface water is excluded. A sufficient number of cleanouts or manholes shall be provided to allow rodding of the system.

Sanitary sewers within the mobile home park area shall not receive storm or surface water drainage.

1.8(4) The minimum size and slope of new sewer installations, exclusive of laterals serving individual mobile home spaces shall be determined in accordance with Table 4, T.XI.

TABLE 4
Minimum Size and Slope of Sewer

Sewer Diameter (Inches)	Mobile Homes Connected (Number)	Slope Per 100 Feet (Inches)
4	2— 50	15
6	51—100	8
8	101—400	5

1.8(5) In new installations, the components of sewage treatment systems shall be separated from wells and other critical items by at least the distance specified in Table 5, T.XI.

1.8(6) Cesspools will not be approved for the disposal of toilet wastes except where installed and in use prior to January 1, 1954. There shall be no overflow or discharge to the ground surface from a cesspool.

1.8(7) Seepage (leaching) pits will be approved for the disposal of kitchen and laundry wastes, in new construction, when complying with the following requirements:

a. The location of each pit shall conform to the standards shown in Table 5, T.XI.

b. Each pit installed for disposal of kitchen wastes shall contain at least one and five-tenths, and each for disposal of kitchen and laundry wastes at least three, cubic yards of crushed rock or gravel below the inlet, with pits serving more than one mobile home or other buildings increased proportionately in size.

c. No pit shall penetrate the soil to a depth within three feet above the ground water stratum, nor to a total depth of over twelve feet.

d. Each pit shall be provided with an inlet pipe, to which a flexible leakproof connection from the mobile home drain shall be attached when the space is occupied and which shall be capped when the space is unoccupied.

e. Each pit shall be covered by not less than twelve, nor more than twenty-four inches of loose filled earth.

f. There shall be no overflow or discharge to the ground surface from any seepage pit.

TABLE 5
*Minimum Separation Distances in Feet Required in
Locating Sewage Treatment Plants*

COMPONENT OF SEWAGE TREATMENT SYSTEM	PRIVATE WELL	PUBLIC WATER SUPPLY WELL	STREAM OR OPEN DITCH	DWELLING OR OTHER STRUC- TURE	PROPERTY LINE
Sewer of cast iron, concrete encased	5	10	—	—	—
Sewer of cast iron, leaded joints, not encased	10	20	—	—	—
Sewer of tile or equivalent material, tight joints	50	75	—	—	—
Septic tank	50	75	—	10	—
Distribution box	50	75	—	—	—
Subsurface absorption field	75	200	—	10	5
Subsurface filter system	75	200	25	10	5
Seepage pit	75	200	25	20	10

Distances specified for public wells also apply to pump suction lines.

Existing systems will be considered as properly located when meeting the above minimum separation distances.

1.8(8) Privies shall be maintained in a clean and sanitary condition at all times. All privy pits shall be fly-tight, and there shall be no spillage or seepage of the pit contents to the ground surface. Pits shall be kept cleaned, or new pits provided when the contents are within eighteen inches of the ground surface. When a privy is abandoned, the superstructure shall be removed and the pit contents covered with lime and at least eighteen inches of compacted earth.

The proposed construction of sanitary privies in existing parks will be approved providing the present method of waste disposal is by privies. In the development of new parks or additions to existing parks, the installation of privies will be approved only when other satisfactory methods of waste disposal cannot be provided. New privies shall be constructed with insect-and-rodent-tight pits and superstructure as shown in publications of the department or equal thereto.

1.8(9) When a septic tank is cleaned the sludge shall be handled in a sanitary manner and its disposal shall be by burial, placing in a public sewer system, or by other similar sanitary methods. Dumping directly into a stream or on land adjacent to a stream is prohibited.

1.9(135D)T.XI Refuse disposal.

1.9(1) The storage, collection, and disposal of refuse (which includes garbage, rubbish, and trash) from each park shall be conducted to avoid creation of health hazards such as rodent harborage, insect breeding areas, and air pollution. The park premises shall be kept free of debris and litter at all times.

1.9(2) All refuse shall be stored in fly-tight, watertight, and rodent-proof metal containers having tight fitting lids; and shall not be allowed to be placed or to accumulate on the ground. Each container and lid shall be maintained in a sanitary condition and in good repair at all times.

Sufficient containers to supply a minimum capacity of twenty gallons for each four mo-

bile homes, and to supply adequate storage space for all refuse produced between collections, shall be provided. In new installations, each container shall be placed on a holder or rack elevated at least twelve inches above the ground level, or an impervious slab at ground level; each of which shall be maintained in a sanitary condition at all times.

Refuse shall be collected from the containers at least once each week, and more often if necessary; and shall be incinerated, buried, or transported to a municipal, county, or private dump ground, or other similar disposal plant. No incinerator used for garbage disposal on the park premises shall create objectionable smoke or odor. No garbage or empty food cans shall be placed in a unit suitable for use only as a trash burner. A spark screen shall be provided for each incinerator and each trash burner. When refuse is buried on the premises, it shall be covered by at least twelve inches of compacted earth immediately.

1.10(135D)T.XI Supervision.

1.10(1) The owner or authorized agent shall be personally liable and responsible for supervision of the park, maintenance of all sanitary appliances and fixtures in good repair and appearance, and conducting, when necessary, insect and rodent control measures including applying insecticides and rodenticides. It shall be the duty of the owner or agent to take promptly such action as may be required to enforce these regulations or, if necessary, to eject from the park any person who willfully or maliciously damages the sanitary appliances or fixtures provided, or does not adhere strictly to these regulations. Adequate equipment for maintaining the park in a strictly sanitary manner at all times shall be provided and maintained by the owner or agent.

1.11(135D)T.XI Cross-connection — water supplies. No public waterworks system, either publicly or privately owned, shall be cross-connected with any other waterworks system, either publicly or privately owned, unless the water in the latter system meets the standard of purity as required for public water supplies by the regulations of the department.

Any direct physical connection between pipes or piping of a public water works system and any other water system shall be deemed a cross-connection regardless of number or type of valves that may be inserted between the two systems, except in such instances where it is physically impossible for water from the secondary system to enter the public water system under any possible combinations of operating conditions, and in such instances connection shall be permitted only with the written approval of the department.

[Filed May 11, 1956]

TITLE XII

Reserved for future use

TITLE XIII

PUBLIC WATER SUPPLY

CHAPTER 1

CERTIFICATION OF OPERATORS OF PUBLIC WATER SUPPLY SYSTEMS AND WASTE WATER TREATMENT PLANTS

1.1(136A)T.XIII Definitions.

1.1(1) The definitions set out in section 136A.1 of the Code shall be considered to be incorporated verbatim in these rules.

1.1(2) "Public water supply" means any water supply, either publicly or privately owned, serving a municipality or a benefited water district serving a municipality.

1.1(3) "Plant" designates the facilities which treat the waste water, water, or distribute the treated water.

1.1(4) "Direct responsibility" refers to that operator who has active field supervision of a water supply system or a waste water treatment plant or who is required in the performance of the normal duties to give responsible, technical advice and part-time supervision of the technical aspects, rather than only general administrative supervision, of operation.

1.1(5) "Population equivalent" for a water treatment plant means the calculated population which would normally require the same amount of water, computed by dividing the average annual daily production of a water treatment plant in gallons by 100.

1.1(6) "Population equivalent" for a waste water treatment plant means the calculated population which would normally contribute the same amount of biochemical oxygen demand (BOD) per day computed on the basis of 0.167 pounds of five-day, 20° C., BOD per capita per day.

1.1(7) "Primary treatment" means treatment process designed to remove from the sewage organic and inorganic settleable solids by the physical process of sedimentation.

1.1(8) "Trickling filter" means treatment process where the settled sewage is passed over a media onto which are attached biologi-

cal organisms capable of oxidizing the organic matter normally followed by sedimentation.

1.1(9) "Activated sludge" refers to a biological sewage treatment process in which a mixture of sewage and sludge floc, produced in a raw or settled sewage by the growth of zoogical bacteria and other organisms, is agitated and aerated in the presence of a sufficient concentration of dissolved oxygen, followed by sedimentation.

1.1(10) "Waste stabilization lagoon" means an excavation designed and constructed to receive raw or pretreated sewage in which stabilization is accomplished by several natural self-purification phenomena.

1.1(11) "Oxidation" means a process changing soluble iron and manganese to an insoluble form by the addition of oxygen to the compound by means of chlorine or potassium permanganate additions or mechanical aeration.

1.1(12) "Chlorination" means the addition of a chlorine compound or chlorine gas to water to protect the bacterial quality of the water.

1.1(13) "Stabilization" means the addition of chemical compounds to water to maintain an ionic equilibrium whereby the water is not in a depository or corrosive state.

1.1(14) "Aeration" means the bringing about of intimate contact between air and water by spraying the water in the air, bubbling air through the water or by forcing the air into the water by pressure.

1.1(15) "Fluoridation" means the adjustment of the fluoride ion concentration to produce the optimum fluoride concentration in the water.

1.1(16) "Zeolite softening" means the process of softening water by passing it through a substance known as a zeolite, which contains chemicals that are exchanged for the hardness-causing elements.

1.1(17) "Coagulation" means the agglomeration of colloidal or finely divided suspended matter by the addition to the water of an appropriate chemical coagulant.

1.2(136A)T.XIII General.

1.2(1) The census taken each decade, or a special census taken by the United States Bureau of Census, shall be used to determine the population served by a water supply system, or waste water treatment plant if the population equivalent data is not available.

1.2(2) A plant having a combination of treatment processes which are in different grades shall be classified according to that process which requires the higher numerical classification.

1.2(3) Plants with sufficient population equivalent or sufficiently complicated processes may be raised to a classification higher than that indicated by population alone.

1.2(4) An operator who has direct responsibility shall hold a certificate of equal or higher classification than that which the plant is classified.

1.2(5) An operator, currently certified, may obtain a duplicate certificate upon payment of two dollars.

1.3(136A)T.XIII Classification of waste water treatment plants.

Grade	Treatment	Population
I	Primary Treatment Waste Stabilization Lagoons	5,000 or less
II	Trickling Filter Activated Sludge Primary Treatment	5,000 or less 2,000 or less 5,000 to 15,000
III	Trickling Filter Activated Sludge Primary Treatment	5,000 to 15,000 2,000 to 5,000 15,000 to 50,000
IV	Trickling Filter Activated Sludge Primary Treatment	15,000 and over 5,000 and over 50,000 and over

1.4(136A)T.XIII Classification of water treatment plants.

Grade	Treatment	Population
I	Iron or Manganese removal by oxidation only, chlorination only, stabilization only, aeration only, or any combination of these processes. Flouridation.	1,000 or less
II	Zeolite Softening Iron or Manganese removal by oxidation only, chlorination only, stabilization only, aeration only, or any combination of these processes.	5,000 or less 1,000 to 15,000
III	Coagulation or lime or lime-soda softening and sedimentation and filtration. Zeolite softening. Iron or Manganese removal by oxidation only, chlorination only, stabilization only, aeration only, or any combination of these processes.	15,000 or less 5,000 and over 15,000 and over
IV	Coagulation or lime or lime-soda softening and sedimentation and filtration.	15,000 and over

1.5(136A)T.XIII Classification of water distribution systems.

Grade	Population
I	15,000 or less
II	15,000 to 50,000
III	50,000 and over

1.6(136A)T.XIII Operator education and experience qualifications.

1.6(1) All applicants shall meet the following educational and experience requirements for the grade of certificate applied as shown below. The experience qualifications shall be in the same field as the type of certificate for which the applicant is applying.

Grade I

a. Two years high school or equivalent and one year of direct responsibility or one year in operation of water distribution system, water treatment plant or waste water treatment plant, or

b. Produce educational qualifications and experience satisfactory to the board of certification and demonstrate ability to operate a water distribution system, water treatment plant, or waste water treatment plant with limited supervision.

Grade II

a. High school education or equivalent and one year of direct responsibility without substitution as allowed in 1.6(2)T.XIII or three years in operation of a water distribution system, water treatment plant, or waste water treatment plant, or

b. Two years high school or equivalent and four years of direct responsibility or six years in operation of a water distribution system, water treatment plant, or waste water treatment plant.

Grade III

a. Two years college and three years of direct responsibility or five years in operation of a water distribution system, water treatment plant, or waste water treatment plant of a Grade II or higher classification facility, or

b. High school education or equivalent and four years of direct responsibility or six years in operation of a water distribution system, water treatment plant, or waste water treatment plant of a Grade II or higher classification facility.

Grade IV

a. A degree of Bachelor of Science in engineering (with special courses or two years' experience in sanitary sciences) and two years in direct responsibility or four years in operation of a Grade III or higher classification of a water treatment or waste water treatment plant, or

b. Four years of college and three years of direct responsibility or five years in operation of a Grade III or higher classification of a water treatment or waste water treatment plant, or

c. High school education or equivalent and six years of direct responsibility or eight years in operation of a Grade III or higher classification of a water treatment plant or waste water treatment plant.

1.6(2) The following substitutions or equivalents for required experience or training may be accepted by the board of certification.

a. Two years' experience in operation of a water distribution system, water treatment plant, or waste water treatment plant

may be substituted for one year of high school or two years of grammar school education.

b. Satisfactory completion of training courses accepted by the board of certification may be considered as equivalent to:

Two years of grade school, or two years of experience in operation, or one year of direct responsibility in operation, or one year of high school, or one-half year of college, nonengineering.

c. The secretary shall record in such applicant's file the substitute qualifications that have been accepted by the board in the issuance of any certificate.

d. The board of certification may waive the experience requirements in exceptional situations.

1.7(136A) T.XIII Examinations.

1.7(1) The fee for the initial certificate issued in each grade shall be three dollars, and for each renewal two dollars. The initial certification fee includes the cost of taking the examination.

1.7(2) Applications for admission to examination shall be on forms provided by the board of certification. Application forms shall be filed with the board of certification for their review prior to the examination. The required fee shall accompany each application.

1.7(3) If an applicant fails the examination, the initial certification fee which accompanies the application shall be retained by the board of certification. This initial fee shall entitle the applicant to re-examination.

1.8(136A) T.XIII Interstate endorsement. The board of certification may consider for recommendation to the commissioner certification without examination of an applicant who was certified by a governmental agency or organization of another state. The applicant must have passed an examination at least equivalent to the examinations offered by the board of certification and meet the education and experience qualifications as set forth in 1.6(136A) T.XIII. The board of certification may at its discretion require the applicant to successfully pass the Iowa examination.

These rules are intended to implement chapters 135A and 136A of the Code.

[Filed June 10, 1966]

TITLE XIV LOCAL BOARDS

CHAPTER I

LOCAL BOARDS OF HEALTH

1.1(137) T.XIV Organization of local boards of health.

1.1(1) *Officers of local board of health.* Each local board of health shall, at its first meeting during any calendar year, elect one of its members to serve as chairman until the first meeting of the following calendar year.

a. The local board of health may elect a vice-chairman, secretary, or other such officers as it may deem advisable.

b. In case of a vacancy of the office of chairman due to death, resignation, or other cause, a successor shall be elected at the next meeting of the board, who shall serve the remainder of the term.

1.1(2) *Meetings of local board of health.* The place, date and time of regular meetings of the local board of health shall be determined by vote of the board, and shall be published in a newspaper of general circulation, in the area in which the local board has jurisdiction.

a. Each local board of health shall meet at least four times yearly.

b. Special meetings of the board may be called as needed by the chairman, or by any three board members. At least twenty-four hours' notice shall be given of special meetings, except in case of emergency.

1.1(3) *Quorum of local board of health.* Fifty percent or more of the board membership shall constitute a quorum.

1.2(137) T.XIV Operating procedures of local boards of health.

1.2(1) The following information shall be submitted to the state department of health:

a. Names, addresses, and telephone numbers of members of the local board of health, which shall be submitted within one month after their appointment.

b. Names of the chairman and any other officers elected by the board, which shall be submitted within one month after their election.

c. Names, addresses, and telephone numbers of board employees, information as to whether these are full- or part-time employees, and the salary they are to receive, which shall be submitted within one month following their employment.

d. Notice of resignation, discharge or other termination of the services of any employee, which shall be submitted within one month following termination.

e. A copy of the minutes of each regular and special meeting of the board, which shall include at least

- (1) the date and place of the meeting,
- (2) a list of members present,
- (3) a report of any official board actions

and shall be submitted within one month of the date of the meeting.

1.2(2) An annual report of expenditures for the previous calendar year, to be submitted on forms provided by the state department of health, which shall be submitted prior to March 15, 1969, and each year thereafter.

1.3(137) T.XIV Expenses of board of health members.

1.3(1) The following may be considered necessary expenses of board of health members:

a. Reimbursement for travel in private car on board of health business at a rate not to exceed ten cents per mile.

b. Actual lodging and meal expenses including sales tax on lodging and meals.

c. Actual expense of public transportation when traveling on board of health business.

d. Miscellaneous expenses related to performance of duties as approved by the board of health.

1.3(2) This rule shall not be construed as requiring the payment of reimbursement to any person or as prohibiting local boards from imposing additional restrictions or administrative requirements on expenses of their members.

These rules are intended to implement chapter 137 of the Code.

[Filed October 10, 1967; amended
January 22, 1968]

TITLE XV

Reserved for future use

TITLE XVI

DEAD HUMAN BODIES

CHAPTER 1

PLACES WHERE DEAD HUMAN BODIES ARE PREPARED FOR BURIAL OR ENTOMBMENT

1.1(156)T.XVI Certificate of inspection. A certificate of inspection valid for a period of two years of places where dead human bodies are prepared for burial or entombment will be issued in the name of the funeral establishment and the current certificate shall be posted in a conspicuous place therein.

1.2(156)T.XVI Preparation room. Any premises operated as a funeral establishment in which any licensed funeral director or embalmer prepares dead human bodies for burial or entombment shall contain a preparation room for that purpose.

1.3(156)T.XVI Preparation room standards. The preparation room shall meet the following standards:

1.3(1) It shall be of such size and dimensions to accommodate and shall contain an embalming table, an appropriate sink or other liquid waste receptacle with sewer and water connections, instrument table, suitable cabinet or shelves, and handwashing facilities to include hot water, soap and towels.

1.3(2) Walls shall run from floor to ceiling and be covered with tile, plaster or sheet rock and finished so that the surface is washable and can be kept in a clean and sanitary condition at all times.

1.3(3) The floor of said room shall be of concrete with a glazed surface, or tile, or, if wooden, the floor shall be covered with intact linoleum that will prevent any fluid seepage into the floor. The seam between the wall and the floor shall be impermeable.

1.3(4) The preparation room shall be private. It shall not be used as a passageway from room to room. No toilet or commode shall

be located within the preparation room. Only equipment necessary for use in preparation of bodies for burial or shipment shall be permitted in the preparation room. A supply of a suitable odorless disinfectant shall be kept on hand at all times.

1.3(5) There shall be a toilet and handwashing facility accessible elsewhere in the building.

1.3(6) Ventilation shall be provided by an exhaust fan vented to the outside of the building.

1.3(7) Doors and windows of the preparation room shall be so installed and constructed as to obstruct view from outside and to prevent fumes and odors from entering any other part of the building. All exterior doors and windows shall be screened.

1.3(8) There shall be adequate lighting. Light fixtures shall be easily cleanable and be kept clean.

1.3(9) The preparation room shall be provided with an adequate water supply. The building drainage system must be discharged into the municipal sewerage system where such a system is available. Where a municipal sewerage system is not available, the building drainage system must be discharged into a private system of waste disposable acceptable to the state department of health. Every plumbing fixture shall be provided with a proper air gap or other acceptable device to prevent flowback into the water supply.

1.3(10) The embalming table shall have a top composed of stainless steel, porcelain or other rustproof material and the edges shall be raised at least three-fourths inch around the entire table. There shall be a drain opening in the table. The drain opening shall be properly vented and connected to the building drainage system.

1.3(11) Each preparation room shall have a covered, watertight receptacle for solid refuse. All such waste materials shall be disposed of by incineration immediately at the conclusion of each embalming case so that all disease-producing organisms will be destroyed and the public health thereby protected.

1.3(12) All preparation rooms shall be maintained in a clean and sanitary condition. All embalming tables, sinks, receptacles, instruments and other appliances used in embalming dead human bodies shall be at least thoroughly cleaned with hot water and detergent or soap immediately after use. There shall be available a suitable means to sterilize instruments.

1.4(156)T.XVI Correction of deficiencies. Any preparation room found to be deficient in meeting these standards shall not be used for the preparation of dead human bodies for burial or entombment until such deficiencies are corrected.

[Filed June 9, 1970]

**TITLE XVII
VITAL RECORDS**

**CHAPTER 1
VITAL RECORDS**

1.1(144)T.XVII Specification. The state registrar may require that a person requesting a copy of a vital record, examination, or search for a vital record specify in writing the name of the person whose vital records are to be copied, examined, or searched; the purpose of such request; and the signature and address of the person making the request.

1.2(144)T.XVII Handling. Equipment or vital records shall not be physically handled except by the state registrar, deputy or authorized personnel. This rule shall not prevent copying vital records.

1.3(144)T.XVII Birth Certificates. The medical portion of a birth certificate shall be considered confidential.

1.4(144)T.XVII Fee. A fee shall be charged by the state registrar of five dollars for each hour or portion thereof for supervision provided during search of records by applicant. All fees collected by the state registrar shall be added to the general fund of the state of Iowa.

These rules are intended to implement chapter 144 of the Code.

[Filed October 10, 1967]

**CHAPTER 2
REPORTS**

2.1(144)T.XVII Reports by funeral directors and embalmers. Each funeral director and embalmer licensed in the state of Iowa shall submit to the state registrar (the commissioner of public health) on the first workday of each month a report of persons deceased in Iowa for whom said funeral director and embalmer had provided professional services during the preceding month. The report shall be made on a form supplied by the state registrar and shall include the name of the deceased and the date and place of death.

This rule is intended to implement chapter 144 of the Code.

[Filed July 8, 1969]

**TITLE XVIII
Reserved for future use**

**TITLE XIX
Reserved for future use**

**TITLE XX
Reserved for future use**

**TITLE XXI
FREE CARE OF TUBERCULAR PATIENTS
IN PUBLIC TUBERCULOSIS SANATORIA**

**CHAPTER 1
APPLICATION FOR FREE TREATMENT**

1.1(254)T.XXI Residence requirement. Any legal resident of Iowa suffering from tubercu-

losis and agreeing to remain under treatment until discharged by the sanatorium as no longer having tuberculosis in a communicable stage may apply for a free treatment certificate. Any person actually residing in the state of Iowa with a bona fide intent to remain in the state of Iowa is to be considered a legal resident of Iowa for the purposes of administration of this law. Applicants are not limited to those who have acquired legal settlement in a county of this state.

1.2(254)T.XXI Certifying agent. In counties maintaining a separate public tuberculosis hospital, the application is made to the board of hospital trustees. In counties which do not maintain such a hospital, the application is made either to the county director of social welfare or to the county overseer of the poor, whichever is designated by the board of supervisors.

1.3(254)T.XXI Treatment costs considered a public health expenditure. In acting upon applications, the board of hospital trustees, county director of social welfare or overseer of the poor are to "consider expenditures of public funds for treatment of tuberculosis as expenditures for the protection of the public health and not as moneys advanced in the nature of welfare or relief." This principle constitutes legal recognition of the public interest in the hospitalization and segregation of tuberculous patients, as an important means of preventing the spread of infection to others. The motive for granting free care is protection to the public, and thus such protection becomes the paramount interest in considering applications for free care.

1.4(254)T.XXI Issuance of certificates—controlling principles.

1.4(1) The board of hospital trustees, county director of social welfare or overseer of the poor are to grant free treatment to a tuberculous applicant who "is not possessed of sufficient income or estate to enable him to make payment of the costs of such treatment in whole or in part without affecting his reasonable economic security or support, in light of his resources, obligations and responsibilities to dependents."

1.4(2) The period of treatment, convalescence and rehabilitation varies for each patient, and the issuing officer shall give consideration to the probable length of such treatment and to the probable post-treatment period, during which the patient may not be able to work after being discharged from the sanatorium, and to the living costs of family and other dependents during the period of treatment, convalescence and rehabilitation, coupled with the need for support of the family in the event the patient does not recover.

1.4(3) The applicant shall not be required to encumber, sell or otherwise sacrifice a homestead required for the housing and maintenance of his family and dependents nor other property holdings to the extent that income from the same is required to provide the ne-

cessities of living for such family and dependents and certificates of free care shall not be denied by virtue of the existence of such property holdings by the applicant or those legally responsible for his care.

1.4(4) Employed members of the applicant's household or those legally responsible for his care shall be allowed to retain such wages as they may earn as are necessary to maintain the reasonable economic security and support of the applicant's household and their obligations and responsibilities to their own or to the applicant's dependents, and certificates of care shall not be denied because of the existence of any such wages or income.

1.4(5) Family savings in a reasonable amount, together with continued maintenance of existing life insurance policies on the applicant or his family in a reasonable amount, shall be preserved to the extent the same are needed to assure the family's economic security during the period of treatment, convalescence and rehabilitation and to provide such security for a reasonable period of family rehabilitation and adjustment in the event of the possible death of the applicant and the issuance of a certificate shall not be denied by virtue of such savings.

1.4(6) In the event the applicant is the head of the family, careful consideration shall be given to the probable loss of income and the consequent need to preserve property holdings, savings and other income sources to carry the family through the period of treatment, convalescence and rehabilitation, until such applicant can again provide reasonable security and support for the family and liquidation of his obligations to himself and his dependents.

1.4(7) In the event the applicant is a wife or mother, not the head of the family, consideration shall be given to the probable added family expense to maintain and operate the home and household until applicant can return and with safety assume in full her former responsibilities. In the event the applicant is a child or other member of the family, but not the head of such family, consideration shall be given to the possible financial needs devolving upon the applicant because of a probable death and disability of the head of his family.

1.4(8) In general, favorable consideration shall be given to applicants who are possessed of moderate resources. Applicants whose resources clearly indicate that all of the costs of treatment can be met without jeopardizing the family's welfare and independence during the period of treatment and the succeeding period of convalescence and rehabilitation shall be expected to meet such costs.

1.4(9) The object of the law and these rules is to obtain admission of the tuberculous patient to a tuberculosis sanatorium with a minimum of delay. Doubtful situations shall be resolved in favor of the public benefits resulting from hospitalization and segregation of a person with tuberculosis.

1.5(254)T.XXI Postsanatorium treatment. Necessary postsanatorium treatment including check-up examinations and pneumothorax re-fills as prescribed by the sanatorium medical staff shall be within the scope of free treatment furnished under the law.

1.6(254)T.XXI Review. Any applicant denied a certificate may have his application reviewed by a district court, who shall hear the matter anew under such rules and procedure as he may prescribe. The county director of social welfare, the overseer of the poor, or the board of hospital trustees, as the case may be, shall co-operate in furnishing to the court such information as it may require.

1.7(254)T.XXI Forms.

1.7(1) Form T-1 is to be completed in duplicate at the time a patient requests free treatment. The original copy is to be a part of the certifying agency's record. The duplicate copy is to be forwarded promptly to the Iowa State Department of Health, Des Moines, Iowa.

1.7(2) Form T-2 is to be completed in quadruplicate by the certifying agency. The original copy is to be issued to the applicant who will present the certificate to the designated public tuberculosis sanatorium in accordance with such contracts, resolutions or actions as the board of supervisors of the county may have taken in connection with their provision for the treatment of tuberculous persons under chapter 254 of the Code. The second copy of T-2 shall be added to the certifying agency's file on the case. The third copy of T-2 shall be promptly filed with the county auditor of the county of legal settlement of the applicant. The fourth copy of T-2 shall be delivered promptly to the Iowa State Department of Health, Des Moines, Iowa. In the event the application for free care is denied, the Form T-2 shall be completed with a statement explaining the reason for rejection and the distribution of the copies shall be the same as the distribution for approved applications. Upon delivery of the decision where free care is denied, the certifying agency should inform the applicant of his privilege of requesting a review of his case before the judge of the district court in his county of legal residence.

1.8(254)T.XXI Distribution of forms for applicants having no legal settlement. In case of an applicant not having a county of legal settlement in the state of Iowa or any rights for legal settlement in another state or when such settlement of the applicant is unknown, the certifying agency shall consider the application in the same manner as in other cases and appropriately issue certificates of free care, if the applicant is residing in the county where the application is made. In these cases, the certifying officer shall name the state tuberculosis sanatorium at Oakdale, Iowa, as the place of treatment in the certificate for free care. The original copy of Form T-2 shall then be issued to the applicant, as in other cases. The second copy of Form T-2 shall be

retained in the agency files, as in other cases. The third copy of Form T-2 shall be delivered to the superintendent of the state tuberculosis sanatorium at Oakdale, Iowa. The fourth copy of Form T-2 shall be delivered to the Iowa State Department of Health at Des Moines, Iowa, as in other cases.

[Filed prior to July 1, 1952]

TITLE XXII
COUNTY MEDICAL EXAMINERS

CHAPTER 1

COUNTY MEDICAL EXAMINERS

1.1(339)T.XXII Types of death under the jurisdiction of the county medical examiner.

1.1(1) *From violence.* Any accident, suicide or homicide resulting from physical, mechanical, chemical, electrical, thermal or related means. A medical examiner's investigation and report is required irrespective of the period of survival following injury and medical attendance at the time of injury or during a period of survival.

1.1(2) *Suddenly, when in apparent health.* This term should be reserved for the following situations:

a. Apparently instantaneous death without obvious cause.

b. Death during or following an unexplained syncope or coma.

c. Death during an unexplained, acute, or rapidly fatal illness.

1.1(3) *When unattended by a physician during the period of thirty-six hours immediately preceding death.* This term should be reserved for the following situations:

a. Found dead without obvious or probable cause.

b. Unattended by a physician during the terminal illness, particularly if such illness appears unrelated to a disease previously diagnosed and under treatment.

c. Accordingly, the medical examiner need not investigate or report a death resulting from or due to a terminal illness which had been diagnosed and where the patient was under treatment by a licensed physician, even though the physician had not seen the patient within the thirty-six hours preceding death. In these cases if the physician has not seen the patient within twenty days prior to death, then the cases should be referred to the medical examiner.

d. *Fetal death (stillbirth) unattended by a physician.* A fetal death (stillbirth) is a fetus born dead after reaching the twentieth week of gestation.

1.1(4) *As a result of, or following, an abortion.* All known deaths as a result of or following an abortion shall be reported to the county medical examiner by all parties, physicians, and hospitals knowing the circumstances of such deaths.

1.1(5) *While in custody of the law.* Any death involving a person while in custody of the law or confined to any prison for any cause.

1.1(6) *In an accident in a gypsum or coal mine.* All deaths occurring in a gypsum or coal mine automatically become medical examiner's cases.

1.1(7) *In a suspicious, unusual, or unnatural manner.* Any death suspected having resulted from accident, suicide, or homicide, or any death not otherwise defined.

1.1(8) *From a disease which might constitute a threat to public health.* Any such death investigated by the medical examiner shall be reported to the local health authority.

1.2(339)T.XXII **Death certificates.** The certificate of death shall be executed on the standard form and the certification of death shall be completed in full by the medical examiner and given to the funeral director to whom the body is released for burial arrangements. It is, however, the duty of the funeral director in charge of the remains to complete the particulars of the certificate and file the certificate with the local registrar in the county wherein death occurred. A death certificate must be filed before a burial or transit permit will be issued and prior to disposal of the body.

1.3(339)T.XXII **Cremation.** Permit must be issued by county medical examiner in the county where the death occurred.

1.4(339)T.XXII **Taking charge of body.**

1.4(1) The medical examiner, upon notification of death shall view the body.

1.4(2) In all cases coming under the jurisdiction of the medical examiner, the decedent shall not be moved from the place of death without the consent of the medical examiner.

1.4(3) The medical examiner may, after investigation and determination that the case is not under the jurisdiction of the medical examiner, refer the case to the attending physician.

These rules are intended to implement chapters 135 and 339 of the Code.

[Filed May 10, 1966]

TITLE XXIII
DOGS FOR SCIENTIFIC RESEARCH

CHAPTER 1

DOGS FOR SCIENTIFIC RESEARCH

1.1(351A)T.XXIII An institution as defined in section 351A.1 of the Code, may make application to the department for authority to request dogs from a pound. Such application shall be on a form furnished by the department, and will include the following:

1.1(1) Name and principal function of institution;

1.1(2) The name and title of its principal officer or manager;

1.1(3) The names and qualifications of the principal persons in charge of research or teaching involving the use of dogs;

1.1(4) The names and qualifications of the principal persons in charge of dog care;

1.1(5) A description of the physical facilities available for the care and custody of dogs;

1.1(6) A general statement of the use proposed to be made of dogs.

1.2(351A)T.XXIII The department may make such investigation of the applicant as it deems necessary, and if satisfied that the institution is fit and proper and that the public interest would be served by so doing, the department will issue its authorization to the institution. The authorization will be in writing.

1.3(351A)T.XXIII An authorization will expire on June 30 of each year, but an institution may at any time apply for further authorization as provided herein for initial authorization.

1.4(351A)T.XXIII Authorized institutions shall at all times and in all respects comply with section 351A.5 of the Code shall further comply with the following minimum requirements for the care and comfort of animals:

1.4(1) All dogs used for experimental purposes must be lawfully acquired and their retention shall be in strict compliance with the law.

1.4(2) Research projects involving live dogs must be performed by, or under the immediate supervision of, a qualified biological scientist.

1.4(3) The housing, care, and feeding of all experimental dogs shall be supervised by a qualified veterinarian or other biological scientist competent in such matters.

1.4(4) Rooms in which dogs are to be housed shall be provided with a floor which can be kept clean, and the room shall be adequately lighted and ventilated. The temperature shall be held within reasonable limits. Cages should be of sufficient size to permit the dogs to stand and lie in a normal position. It is generally conceded that dogs maintained for long periods are in better physiological condition if they exercise regularly. Dogs housed out of doors should be given adequate protection from direct sunlight or inclement weather.

1.4(5) The food and water supplied to all experimental dogs, subject to the nature of the research, must be palatable, and of sufficient quantity and proper quality to maintain the dogs in good health.

1.4(6) In any operation likely to cause greater discomfort than the attending anesthesia, the dog shall first be anesthetized and be maintained in that condition until the operation is ended. Whenever anesthesia

would defeat the purpose of the experiment, the experiment must be approved and directly supervised by the principal person in charge of the research as named in 1.1(351A)T.XXIII.

1.5(351A)T.XXIII An institution reporting to a public body the noncompliance of any pound with the provisions of chapter 351A of the Code shall forthwith send a duplicate of such notice or report to the department. The department will make such investigation as is necessary, and notify the complaining institution and the public body receiving the report of the result of such investigation.

[Filed August 17, 1961]

TITLE XXIV

Reserved for future use

TITLE XXV

Reserved for future use

TITLE XXVI

LICENSING BOARDS

CHAPTER 1

MEDICAL EXAMINERS

(Medicine and Surgery, Osteopathy and Osteopathic Medicine and Surgery)

1.1(146, 147, 148, 150)T.XXVI General requirements.

1.1(1) He shall submit a completed application form with attached recent photograph accompanied by statutory fee.

Statements made in the said application shall be subscribed and sworn to by the applicant and attested under seal by a notary public.

1.1(2) He must be a citizen of the United States, or have legally declared his intention of becoming a citizen of the United States.

1.1(3) He must furnish evidence of good moral character by:

a. Providing the names of references as to his moral character and professional standing.

b. Presenting a photostatic copy of discharge papers, if the applicant has been in the military service at any time.

c. Answering the questions in application as to whether or not the applicant has ever been convicted of an indictable misdemeanor, felony, or violation of any state or federal narcotic Act.

1.1(4) Present a photostatic copy of a certificate of proficiency in the basic sciences issued to him by the state board of examiners in the basic sciences. This requirement is not applicable to resident physician's licenses or temporary licenses.

1.1(5) Present a photostatic copy of a diploma granting the degree Doctor of Medicine and Surgery or Osteopathic Medicine and Surgery or its equivalent issued to the applicant

by a school or college of medicine and surgery or osteopathic medicine and surgery approved by the board of medical examiners.

a. The list of approved schools or colleges of medicine prepared by the Council on Medical Education and Hospitals of the American Medical Association and the Association of American Medical Colleges, and the list of colleges of osteopathic medicine and surgery, prepared by the American Osteopathic Association are accepted. However, such acceptance shall not apply to a diploma granted by an approved college of medicine and surgery or osteopathic medicine and surgery if the applicant did not complete his academic training at said approved college.

b. The medical examiners may accept in lieu of a diploma from a medical college approved by them, all of the following:

(1) A diploma issued by a medical college which has been neither approved nor disapproved by the medical examiners; and

(2) The completion of three years of training as a resident physician which training has either been approved by or is acceptable to the medical examiners; and

(3) The recommendation of the Educational Council for Foreign Medical Graduates.

1.1(6) He shall present a photostatic copy of a certificate indicating the completion of an internship in a hospital approved by the Iowa board of medical examiners.

The lists of hospitals approved for intern training in the United States and Canada, prepared by the Council on Medical Education and Hospitals of the American Medical Association and the Committee on Hospitals of the American Osteopathic Association, are accepted.

1.1(7) He must satisfactorily complete a state or national board examination and present a photostatic copy of a state license or national board certificate obtained by him as a result of such examination.

1.1(8) Each application must include a record of the number and date each license was issued, the manner in which such license or licenses were obtained, and a statement as to whether or not any license so issued has ever been suspended or revoked.

1.1(9) Each application shall include a chronologic statement as to all the places where the candidate has practiced, type of practice engaged in and the period of time so engaged.

1.1(10) Any candidate applying for licensure shall be required to appear for a personal interview before the board or before a member thereof, unless waived by the board.

1.2(147)T.XXVI Rules for conducting examinations.

1.2(1) The application accompanied by a fee of fifty dollars must be on file at least fifteen days before the date of examination.

1.2(2) The board of medical examiners may require written, oral and practical exami-

nations of any applicant, but ordinarily applicants who pass the written examination will be excused from oral or practical examination.

1.2(3) The following is the schedule of subjects in which examinations are required:

Anatomy, including Histology and Embryology

Chemistry
Materia Medica, Pharmacology and Therapeutics

Medicine, including Psychiatry
Obstetrics and Gynecology
Pathology and Bacteriology

Pediatrics
Physiology
Public Health, Hygiene, Medical Jurisprudence

Surgery including Orthopedics, Urology
Eye, Ear, Nose and Throat

Two hours will be allowed for each examination.

1.2(4) A general average of not less than seventy-five percent will be required to pass, but no license will be granted to an applicant whose grade is below seventy percent in any one subject.

a. Any candidate who fails in his examination shall be entitled to take a second examination without further fee or application at any time within fourteen months after the first examination. The candidate shall be required to repeat the entire examination in his second examination.

b. Thereafter, the candidate will be required to file a new application with fee of fifty dollars and take the entire examination.

1.2(5) A senior student expecting to graduate from an approved college of medicine and surgery or osteopathic medicine and surgery may be admitted to the examination upon presentation of a statement from the dean of his college certifying his good standing; but his license will not be granted until he has furnished proof of graduation and satisfactory completion of his internship.

1.2(6) A student who has completed the first two years of study in a college approved by the board may be admitted to the examination in anatomy, chemistry, physiology, pathology and bacteriology, providing he:

a. Files with his application a certificate of good standing from the dean of said college.

b. Presents a photostatic copy of a certificate of proficiency in the basic sciences issued by the state board of examiners in the basic sciences.

c. Pays a fee of twenty-five dollars to the board of medical examiners which fee shall not be returnable nor entitle said applicant to additional examinations, but after graduation applicant will be required to pay twenty-five dollars only for the final examination.

In each instance wherein the candidate attains a general average of seventy-five percent in said examination, the ratings attained shall be credited upon his final examination after

graduation. However, if the candidate receives a grade below seventy percent in any one subject, he shall be deemed to have failed the partial examination and said candidate will be required to repeat all of the partial examination subjects at the time he takes the entire examination following graduation from his professional school.

1.2(7) No candidate shall under any circumstances enter the examinations more than thirty minutes late unless excused by the board or a member thereof, and no candidate shall leave the room within thirty minutes after distribution of the examination papers. All time lost by being absent shall be included in the time allotted to the examination of that particular subject.

1.2(8) Candidates will not be permitted to communicate with each other during examination, or to have in their possession help of any kind. Any applicant who violates this requirement will be dismissed and deemed to have failed the entire examination.

1.2(9) All examinations shall be written legibly in English with pen and ink on examination paper provided by the board.

1.2(10) Each applicant will be given a confidential number which he shall inscribe at the top center of each page of his examination; no other marks shall be placed on any paper whereby the identity of the candidate may become known. The pages are to be numbered in the upper right-hand corner.

1.2(11) Handwriting must be legible. Punctuation, grammar, and general appearance of examination papers will be considered in grading papers.

1.3(147, 148) T.XXVI License by reciprocity or interstate endorsement.

1.3(1) The fee is one hundred dollars.

1.3(2) A license to practice medicine and surgery or osteopathy or osteopathic medicine and surgery by reciprocity or by endorsement may be issued on the basis of a written examination in substantially all of the subjects required by this board given by a state examining board having reciprocal relations with the Iowa board, provided that the applicant meets all other requirements for licensure in this state.

1.3(3) If any state with which this state reciprocates places any limitations or restrictions upon licentiates of this state, the same limitations or restrictions may be imposed upon licentiates of such state applying for admission to practice in this state on the basis of reciprocity or endorsement.

1.3(4) The statements made in the application must be reviewed and verified by the state examining board issuing the original license certifying under seal as to the subjects in which the applicant was examined, the grade obtained in each subject and the general average attained in the entire examination.

If the examination failed to include one or

more of the subjects required by the board of medical examiners, the applicant may be required to take a supplemental examination in the subjects omitted, and the grades attained thereon shall be added to those of his former examination in order to determine the general average.

1.3(5) No reciprocal license or license by endorsement shall be issued to any applicant who has previously failed an examination in this state. However, he may apply for licensure by examination.

1.3(6) In all cases the board of medical examiners reserves the right to review the examination papers and grades upon which reciprocal or endorsement certification may be granted before accepting the same.

1.3(7) No reciprocal license or license by endorsement shall be issued except on the basis of a license received by examination, and the applicant must have completed at least one year of practice in the state from which he applies or other practice or training deemed by the board to be the equivalent thereof.

1.3(8) The board may require written, oral or a practical examination of an applicant for licensure by reciprocity or endorsement.

1.4(147, 148) T.XXVI License by endorsement of national board certificate.

1.4(1) The rules listed under the title "Licensure by Reciprocity Agreement or Interstate Endorsement" shall apply to all candidates for licensure by endorsement of national board credentials.

1.4(2) The certificate of examination granted by the National Board of Medical Examiners or the National Board of Osteopathic Examiners of the United States of America may be accepted in lieu of the examination required for licensure in Iowa.

1.4(3) A license to practice medicine and surgery or osteopathic medicine and surgery, issued by the duly constituted authority of another state, territory or foreign country, may be accepted in lieu of the examination required for licensure in this state.

This rule is intended to implement sections 147.47, 147.49, 147.51, 147.53, 147.80, 147.104, 148.3 and 150A.7.

1.5(148) T.XXVI License to practice as a resident physician.

1.5(1) Limited licenses to practice medicine and surgery in hospitals as resident physicians only are granted on the basis of examination or endorsement for a period of one year, renewable for six additional years at a fee of three dollars annually on the first day of July following the date of issuance of such license.

1.5(2) Each applicant shall:

a. Submit a completed application form with attached photograph accompanied by a fee of fifteen dollars.

b. Present a photostatic copy of a diploma issued by a school of medicine or college of

medicine approved by the board of medical examiners.

c. Present a photostatic copy of a certificate indicating the completion of one year of internship in a hospital approved by the board of medical examiners.

d. Be a citizen of the United States or have legally declared intention of becoming a citizen of the United States.

The board may waive this requirement for foreign graduates, here for training and study only, who are properly admitted under visas of the state department of the United States.

1.5(3) Candidates may be required to satisfactorily complete an examination prescribed by the board.

a. The board may require written, oral or practical examination.

b. In any case, the board may require the candidate to appear for a personal interview before either the board or a member thereof.

c. Grades received in a state licensure or national board examination may be accepted in lieu of a written examination conducted by this board, in which instance:

(1) The applicant must furnish a photostatic copy of an original certificate of license or national board certificate obtained as a result of such examination.

(2) The statements made in the application must be reviewed and verified by the examining board issuing the original certificate, who will also certify, under seal, as to the schedule of subjects in which the applicant was examined, the grades given thereon and the general average attained.

1.6(148)T.XXVI Temporary licensure.

1.6(1) Temporary licenses may be granted on the basis of examination or endorsement for a period not to exceed one year.

1.6(2) Each applicant shall:

a. Submit a completed application form with attached photograph accompanied by a fee of twenty-five dollars.

b. Present a photostatic copy of a diploma issued by a school or college of medicine and surgery or osteopathic medicine and surgery approved by the board of medical examiners.

c. Present a photostatic copy of a certificate indicating the completion of one year of internship in a hospital approved by the board of medical examiners.

d. Be a citizen of the United States or have legally declared intention of becoming a citizen of the United States.

The board may waive this requirement of foreign physicians, here for teaching or training and study only, who are properly admitted under visas of the state department of the United States.

e. Furnish an affidavit from a licensed physician or the dean of an approved college in this state setting forth facts supporting the need that exists for the issuance of said license.

1.6(3) Candidates may be required to satisfactorily complete an examination prescribed by the board.

a. The board may require written, oral or practical examinations.

b. In any case, the board may require the candidate to appear for a personal interview before either the board or a member thereof.

c. Grades received in a license examination before the duly constituted authority of another state, territory, foreign country or before the national board of medical examiners or national board of osteopathic examiners may be accepted in lieu of a written examination conducted by this board, in which instance:

(1) The applicant must furnish a photostatic copy of his national board certificate or an original certificate of license obtained as a result of such examination.

(2) The statements made in the application must be reviewed and verified by the examining board issuing the original certificate, who will also certify, under seal, as to the schedule of subjects in which the applicant was examined, the grades given thereon and the general average attained.

1.7(150A)T.XXVI Major surgery requirement for osteopathic physician.

1.7(1) An acceptable one-year postgraduate course in the subject of surgery prescribed by this board, shall consist and be comprised of the following: Pathology, surgical diagnosis and technique, roentgenology, surgical anatomy, neuroanatomy, biochemistry, physiology, pharmacology and anesthesiology; together with one elective subject offered in the college's program of postgraduate education; or a one-year residency involving a thorough and intensive study of the practice of surgery, in an affiliated teaching hospital of an approved osteopathic college, such residency being approved by the bureau of hospitals and board of trustees of the American Osteopathic Association and the board of medical examiners.

This rule is intended to implement chapters 146, 147, 148, 150A of the Code.

[Filed November 20, 1951; amended May 13, 1964]

CHAPTER 2

Reserved for future use

CHAPTER 3

PHYSICAL THERAPY EXAMINERS

3.1(147)T.XXVI Definitions.

3.1(1) "Board" means the board of physical therapy examiners.

3.1(2) "Department" means the state department of health.

3.1(3) "Licensure by interstate endorsement" means the issuance of a license to prac-

tice physical therapy to an applicant who has been licensed in another state, to be considered on an individual basis for licensure in Iowa, if the applicant meets the qualifications required of a licensed physical therapist in Iowa.

3.2(147)T.XXVI General.

3.2(1) Licenses issued by the board shall be for licensure by examination or licensure by interstate endorsement. Each license shall be 8½ by 11 inches in size. Each license issued shall bear the signatures of all board members with their appropriate titles.

3.2(2) The board requires the completion of parts I, basic sciences; II, clinical sciences; and III, physical therapy, theory and procedure, of the American Physical Therapy Association approved examination prepared by the Professional Examination Service.

3.2(3) The board will accept the certified grades provided by the Professional Examination Service for each of the three parts of the examination. A passing grade shall be required on each part of the examination.

3.2(4) An examinee failing one part of the examination shall be required to repeat only the part failed.

3.2(5) An examinee failing two or more parts of the examination shall be required to repeat the entire examination.

3.3(147)T.XXVI Licensure by examination.

3.3(1) Applications for licensure to practice physical therapy in Iowa shall be made directly to the Iowa State Department of Health, State Office Building, Des Moines, Iowa, at least fifteen days prior to a scheduled practical and/or oral examination by the board. The application form will be furnished by the department. The application shall include the following:

a. A notarized statement giving full name, current address, age, date of birth and place of birth.

b. Declaration as to licensures or registrations held and examinations taken.

c. A photograph at least 3 x 3½ inches in size taken within six months prior to the application for proper identification purposes.

d. A certified copy of the certificate or diploma awarded the applicant from a school of physical therapy accredited by the American Medical Association and the American Physical Therapy Association.

e. A certified copy of the grades achieved on parts I, basic sciences; II, clinical sciences; and III, physical therapy, theory and practice, of the American Physical Therapy Association approved Professional Examination.

f. Fee in the amount of twenty-four dollars in the form of a check or money order made payable to the Iowa State Department of Health.

3.3(2) The board will conduct a practical and/or oral examination of all applicants for licensure.

3.3(3) The department will stamp each application with a date stamp upon its receipt at the department.

3.4(147)T.XXVI Licensure by interstate endorsement.

3.4(1) An individual from another state seeking a license to practice physical therapy in Iowa will be considered on an individual basis under the principle of interstate endorsement.

3.4(2) An out-of-state applicant shall complete the same application as that outlined in 3.3(147)T.XXVI above, and shall in addition attach a certified copy of any and all licenses to practice physical therapy he may hold from other states.

3.4(3) Any applicant for interstate endorsement must have practiced physical therapy on a full-time basis for at least one of the immediately preceding three years.

3.4(4) An applicant for licensure under this rule must include with this application a sworn statement of his previous physical therapy practice, detailing places of employment, dates of employment, and indicate whether or not he has ever had a license revoked or suspended. If his license has ever been revoked or suspended, then he must furnish a sworn statement detailing the circumstances.

3.4(5) The board will give a practical and/or oral examination to all applicants under this rule.

3.4(6) The board will accept certified grades from the American Registry of Physical Therapists reflecting satisfactory passage of the American Registry Examination prior to July 4, 1965. These grades may be considered in lieu of satisfactory passage of the American Physical Therapy Association approved Professional Examination Service Examination at the discretion of the board, under this rule only.

3.4(7) Fee in the amount of forty-four dollars in the form of a check or money order made payable to Iowa State Department of Health.

These rules are intended to implement chapters 135 and 147 of the Code.

[Filed July 12, 1966]

CHAPTER 4

Reserved for future use

CHAPTER 5 PODIATRY EXAMINERS

5.1(147, 149)T.XXVI Conducting examinations.

5.1(1) All applications for examination must be made upon the official forms supplied by the State Department of Health, Statehouse, Des Moines, Iowa.

5.1(2) These application forms properly filled out shall be filed with the state department of health together with the applicant's diploma and the fee of twenty dollars, at least fifteen days before the date of examination.

5.1(3) Each application form will require that a full statement be made of the number and date of each state examination taken by him prior to his application to this board, together with the average obtained thereon at each, and whether or not any certificate issued him has ever been suspended or revoked.

5.1(4) The statements made in application form shall be subscribed and sworn to by the applicant and attested under seal by a notary public, or if executed outside the state of Iowa, by the clerk of a court of record.

5.1(5) A senior student expecting to graduate from an approved podiatry college at the end of the spring term may be admitted to the state examinations held in May or June upon a presentation of a certificate from the dean of his college stating that the applicant has conformed to all the college requirements and will be granted a diploma at commencement, but the examination papers of such applicant will not be rated until his diploma has been issued and verified by the state department of health.

5.1(6) No candidate shall under any circumstances enter the examination more than thirty minutes late unless excused by the examiners and no candidates shall leave the room after the distribution of the question papers. Candidates shall not be permitted to leave the room during the examination unless accompanied by one of the examiners or a clerk endorsed by the board.

5.1(7) The candidates will be seated at individual tables or desks and will not be permitted to communicate with each other during the hours of examination, nor to have in their possession help of any kind. Any applicant detected in seeking or giving help during the hours of examination will be dismissed and his papers canceled, but he will be entitled to return for another examination within fourteen months.

5.1(8) All examinations shall be in writing and in the English language and shall be written with pen and ink. Special examination paper will be supplied by the department of health but pens and ink must be provided by the candidates.

5.1(9) Before commencing the examination each applicant will be given a confidential number which he shall inscribe at the upper left-hand corner of each page of the manuscript; no other marks shall be placed on any paper whereby the identity of the candidate may become known. The pages are to be numbered in the upper right-hand corner.

5.1(10) The examination questions will be prepared and the answers rated by the board members to whom the subjects have been assigned.

5.1(11) The handwriting of the candidate must be legible; proper punctuation and the use of capital letters and general appearance of examination papers will be considered in marking answers.

5.1(12) The following is the schedule of questions to be submitted to the candidates for examination:

Anatomy, bacteriology, chemistry, clinical and practical podiatry, podiatric medicine, diagnosis, dermatology, histology, materia medica, neurology, orthopedics, pathology, pharmacy, physiology, physiotherapy, roentgenology, surgery and others as prescribed by the board of podiatry examiners.

5.1(13) There shall be assigned a time and place to each candidate for the purpose of being given an oral examination by the board of examiners in the following subjects: Personal history, ethics, theory in practice.

5.1(14) The board of examiners shall file with the department a brief summary and estimation of the answers to the oral examination of each candidate.

5.1(15) A general average of not less than seventy-five percent of the correct answers will be required to pass, but no certificate will be granted to an applicant whose grade is below seventy percent in any one subject.

5.1(16) Any candidate failing to pass in his first examination shall be entitled to a second examination within fourteen months without filing a new application and fee, but for all examinations subsequent to the second one, a new application and fee of twenty dollars shall be required.

5.1(17) At the conclusion of the examination each candidate will be required to sign the following:

Declaration of Honorable Conduct in Taking Examination:

We, the undersigned, each and severally declare that we are applicants for certificates from the Iowa State Department of Health as certified to it by the State Board of Podiatry Examiners authorizing us to practice Podiatry in Iowa, and that we were present and took the examination held at, Iowa, on, 19.....

We further declare we neither received nor extended any aid to others nor resorted to any means whatsoever to secure the required ratings to enable us to pass.

We further declare that we did not see any of the sets of questions used at this examination until they were handed out by the examiners.

5.1(18) *Citizenship.* All applicants for licensure must be citizens of the United States or have taken out first naturalization papers.

5.2(147, 149) T.XXVI Rules and regulations concerning reciprocal agreements.

5.2(1) All applications for license by reciprocal agreement must be made on the official

forms supplied by the state department of health.

5.2(2) This application properly and completely filled out must then be filed with the secretary of the state board of examiners fifteen days prior to the date of the examiners' regular meeting usually held in June or in person to the secretary of the board at his office in the interim. This application must be accompanied with the fee of forty dollars.

5.2(3) Each application will require attached thereto a photostatic copy of their diploma from the podiatry college from which they graduated, and a photostatic copy of their license from the state from which they are applying. Further, there shall be furnished and attached a complete transcript of credits and grades from their school plus a certified copy of their grades from their state board examination.

5.2(4) No person is eligible to apply for a license by reciprocal agreement in Iowa unless he can present satisfactory evidence of having practiced at least two years in the state from which he is applying.

5.2(5) No temporary certificate or special permits to practice podiatry shall be issued. The filing of application does not grant an applicant any privilege to practice podiatry in any manner whatsoever in the state of Iowa.

5.2(6) A license to practice podiatry in the state of Iowa by a reciprocal agreement shall be granted to an applicant only on the same basis on which such other state grants a certificate to an applicant from this state.

5.2(7) No license by reciprocal agreement shall be given to an applicant from another state that does not have educational requirements on a par with the Iowa podiatry law.

5.2(8) No license by reciprocal agreement shall be granted to an applicant unless he can furnish satisfactory evidence of membership in good standing in his state and national associations.

[Filed prior to July 1, 1952]

CHAPTER 6

Reserved for future use

CHAPTER 7

CHIROPRACTIC EXAMINERS

7.1(151)T.XXVI Rules of examinations.

7.1(1) The board will meet the first Monday in April, August and December to conduct examinations, or any business which may regularly come before it, and other meetings at the discretion of the board. The December meeting will be at the statehouse in Des Moines. Applications will be made on the regular forms provided for that purpose, and must be in the hands of the board fifteen days prior to the date of the examination.

7.1(2) Candidates must answer correctly seventy percent of the questions in each subject and attain a general average of seventy-five percent.

7.1(3) *Application for examination.* Application shall be made direct to the secretary of the board.

7.1(4) *Photo.* An unmounted photo of the applicant, 3½ inches by 5½ inches, shall be pasted in space provided on application before filing with the board of examiners. This photo will be verified with the applicant before he is allowed to write the examination.

7.1(5) *Examination number.* Before commencing the examination, each applicant will be given a confidential number which he shall inscribe at the upper left-hand corner of each page of the manuscript; no other marks shall be placed on any paper whereby the identity of the candidate may become known. The pages are to be numbered in the upper right-hand corner.

7.1(6) Any falling paper must be reviewed by the entire board.

7.2(151)T.XXVI Rules pertaining to schools.

7.2(1) Recognized schools or colleges of chiropractic incorporated in this state will be required to regulate their clinics and conduct them in the following manner:

7.2(2) The schools shall maintain a department of patient adjusting, or student clinics. The student clinic shall be of two categories:

a. A school clinic.

b. An outpatient clinic.

7.2(3) The director of the student clinic and the director of outpatient clinic or service, must hold an Iowa chiropractic license.

7.2(4) Students adjusting in the school clinics must be under direct faculty supervision at all times.

7.2(5) Students with less than two months of clinical adjusting cannot do outpatient adjusting.

7.2(6) The school shall require of all students who adjust patients outside of regular school clinics that they apply for and obtain a written permit from the department of student clinics, designating the correct name, age, sex, address, together with the diagnosis and analysis of each patient under the student's care. Such permits shall not exceed ten at any one time for each student adjuster, and shall expire at the end of fourteen days from date of issuing.

7.2(7) Technic used by the student must be approved by the director of outpatient service.

7.2(8) Permits must be shown to the patient.

7.2(9) Permits are valid for adjusting only in the city of school.

7.2(10) Students shall not be permitted to adjust other students outside of school clinics.

7.2(11) Permits must be returned to director if patient discontinues service.

7.2(12) Quarantine, placard and venereal cases shall not be adjusted by students.

7.2(13) Students shall not be permitted to make analytical X-ray pictures outside of school laboratory.

[Filed December 15, 1952]

CHAPTER 8

Reserved for future use

CHAPTER 9

OPTOMETRY EXAMINERS RECIPROCITY OR INTERSTATE ENDORSEMENT

9.1(147)T.XXVI Rules for examinations.

9.1(1) All applicants for examination shall apply to the State Department of Health, State Office Building, Des Moines, Iowa 50319 for application forms.

9.1(2) The forms properly filled in shall be filed with the state department of health, together with satisfactory evidence of compliance with section 154.3(1,2) of the Code, fifteen days prior to the examination.

9.1(3) The examination for admission to practice optometry in Iowa shall consist of two parts:

a. Parts one and two of the written examination of the national board of examiners in optometry, which parts include the subjects of physiology of the eye, optical physics, anatomy of the eye, ophthalmology, and practical optometry passage of which shall satisfy the requirements of this part of the examination; and

b. Oral and practical examination as given by the Iowa board of optometry examiners with general average of not less than seventy-five percent correct answers as a requirement for passing.

9.1(4) Any applicant failing in his first examination shall be entitled to a second examination within fourteen months after the first examination without filing a new application or fee.

9.2(147)T.XXVI Licensure by reciprocity or interstate endorsement.

9.2(1) All reciprocal agreements adopted and in force between the Iowa board of optometry examiners and other state licensing boards shall be governed by these rules.

9.2(2) Applicants for licensure to practice optometry in the state of Iowa, who are licensed by examination by any other state licensing board maintaining equal practice privileges, will be considered on an individual basis.

9.2(3) A license may be granted by the Iowa board of optometry examiners without

an examination, or as much examination as may be required to establish proficiency and desirability to any such applicant, who, at the date of the original license issued, fully conformed to the educational and licensure requirements of said board of optometry examiners in Iowa.

9.2(4) All applications for reciprocity shall be made on the official forms supplied by the State Department of Health, State Office Building, Des Moines, Iowa.

9.2(5) The application forms properly filled in, accompanied by (a) a fee of forty dollars, (b) the state licensing certificate (or duplicate copy of same) of the state from which applicant desires to reciprocate, and (c) the optometry college diploma or in lieu thereof a certified statement from the authorities of the optometry college, regarding the issuance of the diploma and the date of same, shall be filed with the state department of health, at least fifteen days prior to date of examination or board meeting.

9.2(6) Each applicant must furnish certified evidence of three or more years' practice in the state from which he desires to reciprocate, immediately preceding the filing of his application for reciprocity.

9.2(7) The statements made in the application must be reviewed and verified by the secretary of the state examining board issuing the original certificate, who will also certify as to the schedule of subjects in which the applicant was examined, and the rating given thereon and the general average attained.

9.2(8) If the examination failed to include one or more of the subjects required by the Iowa board, the applicant may be required to take a supplementary examination before this board in the subjects omitted, and ratings awarded thereon shall be added to those of his former examination in order to determine his general average.

9.2(9) Each applicant will be required to make on the application form a sworn statement of the number and date of each examination taken by him prior to his application to this board together with the ratings obtained thereon at each, a statement as to all the places where he has practiced, the character of practice engaged in (general, special or itinerant), and the length of time so engaged in each and whether or not any certificate issued to him has ever been suspended or revoked.

These rules are intended to implement chapter 147 of the Code.

[Filed November 14, 1967]

CHAPTER 10

OPTOMETRY EXAMINERS STUDY COMPLIANCE FOR LICENSE RENEWAL

10.1(147)T.XXVI General.

10.1(1) The optometric study compliance year shall extend from June 1 through May 31 during which period attendance at ap-

proved study sessions may be used as evidence of study fulfillment requirements for the subsequent license renewal year beginning July 1 and expiring June 30.

10.1(2) The educational requirement of two days shall be twelve clock hours of attendance and study at approved study sessions.

10.1(3) The required number of study hours may be obtained by one or all of the following methods:

a. The annual educational program or clinic of the Iowa optometric association;

b. Postgraduate study sessions or seminars at an accredited school of optometry;

c. Local study group programs approved by the board;

d. Other meetings or seminars either within or without the state of Iowa that may be approved in advance by the board with such request for approval to be made to the board at least fourteen days prior to said meeting or seminar;

e. Home study material specified and approved by the board in cases of extenuating circumstances. Such will be allowed only upon submission of satisfactory evidence to the board of such circumstance and inability to acquire the number of study hours.

10.1(4) Certification to the board of attendance at any of the foregoing study sessions shall be made within seven days of said meeting by the secretary or chairman of the organization or group sponsoring said meeting, the dean of optometry school, or in the case of special meetings approved by the board, a person so designated by the board.

10.2(147)T.XXVI Local study groups.

10.2(1) Application to establish an authorized study group must be filed with the secretary of the board of optometry examiners by April 30 for subsequent study compliance year June 1 through May 31. Late applications may, with the judgment of the board, be acceptable, but the attendance to study groups making late application will be valid only from date of approval by the board of optometry examiners.

10.2(2) Each study group must apply to and be approved by the board of optometry examiners each study compliance year on appropriate forms to be obtained from the secretary of the board of examiners.

10.2(3) Failure of a study group to apply to and be approved by the state board of optometry examiners during any study compliance year will render attendance to the unapproved study group invalid as evidence for study compliance for license renewal for the subsequent license year.

10.2(4) An application for study group recognition will not be approved if the proposed meeting place is within twenty-five miles radius of the meeting place of an already existing study group.

10.2(5) No study group will be recognized that does not maintain a minimum membership of eight optometrists and each group must conduct not less than nine sessions or meetings during any one study compliance year. Each session or meeting shall not exceed two hours in duration and credit for study compliance for more than that amount of time will not be allowed, provided, however, that on prior request to the board approval may be given by the board in special circumstances for a session or meeting to exceed two hours.

10.2(6) The secretary of the board shall give written notice to all optometrists, licensed and practicing in Iowa, prior to June 1 of each year of all local study groups that have been approved by the board and the name of the person in each such approved study group that may be contacted for information concerning the dates, location, and subject matter of the various study meetings to be held by the particular study group. The secretary also at such time shall give notice of all other special meetings or seminars, if any, that have been approved as of June 1 by the board for credit toward the required hours for study compliance.

These rules are intended to implement chapter 147 of the Code.

[Filed November 14, 1967]

CHAPTER 11

Reserved for future use

CHAPTER 12

EMBALMER EXAMINERS

12.1(156)T.XXVI Care of the dead.

12.1(1) *Duties of licensed embalmers.* It should be the duty of every person taking charge of the preparation for burial of the body of any person to ascertain whether such person died of a communicable disease.

12.1(2) *Communicable diseases.* For the purpose of the rules under this chapter, the following diseases are classified as communicable and reportable in Iowa:

- Actinomycosis
- Anthrax
- Chickenpox (varicella)
- Cholera
- Conjunctivitis, acute infectious (of the newborn, not including trachoma)
- Dengue
- Diphtheria
- Dysentery, amebic (amebiasis)
- Dysentery, bacillary
- Encephalitis infectious (lethargic and non-lethargic)
- Favus
- German measles (rubella)
- Glanders
- Gonorrhoea
- Hookworm disease (ancylostomiasis)
- Influenza
- Leprosy
- Malaria

Measles (rubeola)
 Meningococcus meningitis (cerebrospinal fever)
 Mumps (infectious parotitis)
 Paratyphoid fever
 Plague, bubonic septicemic, pneumonic
 Pneumonia, acute lobar
 Poliomyelitis
 Psittacosis
 Puerperal infection (puerperal septicemia)
 Rabies
 Rheumatic fever (acute)
 Rocky Mountain spotted (or tick) fever
 Scarlet fever (scarlatina)
 Septic sore throat
 Smallpox (variola)
 Syphilis
 Tetanus
 Trachoma
 Trichinosis
 Tuberculosis, pulmonary
 Tuberculosis, other than pulmonary
 Tularemia
 Typhoid fever
 Typhus fever
 Undulant fever (brucellosis)
 Whooping cough (pertussis)
 Yellow fever

12.1(3) Deaths from communicable disease. Among the diseases listed in 12.1(2)T.XXVI as communicable and reportable, the only conditions requiring special care from the standpoint of the embalmer and of preparation of the body are the following: Anthrax, diphtheria, meningococcus meningitis (cerebrospinal fever), scarlet fever and smallpox.

12.1(4) Licensed embalmer may enter isolation area. When death has occurred from any of the diseases listed in 12.1(2)T.XXVI, the licensed embalmer is hereby granted permission to enter the isolation area and to perform any and all of his professional duties.

12.1(5) Protection of the embalmer. In case of death from one of the diseases named in 12.1(3)T.XXVI, the licensed embalmer must observe the following rules:

a. Before handling the body the embalmer and his assistants should be so clothed that their outer garments may afterwards be easily sterilized.

b. Rubber gloves should be worn, in order to minimize the danger of contamination.

c. The body should be washed with an odorless disinfectant, preferably bichloride of mercury, 1-1,000 solution.

d. All garments of the funeral director and his assistants should be dipped in bichloride of mercury for thirty minutes and afterward boiled; they may then be sent to a public laundry.

e. The instruments should be sterilized by boiling.

f. The hands should be washed with soap and water followed by a disinfectant such as rubbing alcohol (seventy percent alcohol) or bichloride of mercury, 1-1,000 solution.

g. Clothing of the deceased should be thoroughly disinfected.

h. If the deceased died of any of the diseases mentioned in 12.1(3)T.XXVI, and is removed to a funeral home for preparation and embalming, the body must be wrapped in sheets which have been soaked in formaldehyde or bichloride of mercury (1-1,000).

12.1(6) Preparation of the body when death occurs from a disease listed in 12.1(3)T.XXVI.

a. The body of any person who has died of any of the specified diseases shall be prepared by washing with a disinfectant solution, the plugging of all body cavities including the ears, nose, throat, mouth, and rectum with such material as will absorb and retain all abnormal secretions or fluids.

b. In addition to the above-described preparation, the body should receive arterial and cavity injection.

c. The care and preparation of the body should be done entirely in private and no one should be in the preparation or embalming room except the licensed embalmers and their assistants, until the body is fully prepared and dressed.

d. The body will then be placed in a casket and a licensed embalmer should himself close the lid as soon as the body is properly prepared.

e. After the body has been placed in a casket, it should be the duty of the licensed embalmer to see that the body is not handled or moved by any unauthorized person.

f. It shall be unlawful for any person except a licensed embalmer to open a casket that contains the body of any person dead of any of the above-mentioned diseases.

12.1(7) Preparation of the body when death occurs from any other cause than the above-specified diseases. The preparation of the body when death occurs from a noncommunicable disease should be the same as in paragraph "a," "b" and "c" of the preceding subrule, except that in case of religious objections or impracticability of any nature, specified arterial and cavity injections may be omitted, provided that interment is to be made within the local health jurisdiction where the death occurred and within forty-eight hours after death. Nothing in this subrule shall be construed as preventing any school of embalming, recognized by the state department of health, from embalming bodies in the presence of their enrolled students.

12.1(8) Method of preparing bodies for shipment to colleges. Bodies dead of the diseases named in 12.1(3)T.XXVI shall be embalmed. All other cases shipped during warm weather shall have two quarts of embalming fluid injected by means of a cannula inserted into the abdomen and thorax. The dead body is to be shipped so that it will reach its destination within twenty-four hours. All dead bodies [except those named in 12.1(3)T.XXVI] shipped to colleges during cold weather should, whenever possible, be sent without embalming.

12.1(9) Standard embalming fluid. The finished product shall contain not less than

fifteen percent of formaldehyde when diluted according to the directions on bottle or package.

12.1(10) Embalming fluids—poisons. No embalming fluid or other agent containing arsenic shall be used within the state of Iowa in the embalming or preservation of dead human bodies.

12.1(11) Special rules regulating all mortuaries, funeral homes, and undertaking establishments in the state of Iowa.

a. The care and preparation of all persons dead of any cause shall be entirely private and no one shall be allowed in the embalming room except the licensed embalmers and their assistants until the body is fully prepared and dressed except by permission of the immediate family.

b. The commissioner of the state department of health shall have prepared suitable placards for framing, setting forth this ruling. These placards shall be furnished by the state department of health to all licensed embalmers. The licensed embalmer shall have them framed and permanently fastened to all doors of the preparation or embalming rooms. There shall also be one of these framed placards on display in the general office of every undertaking establishment in the state of Iowa.

12.1(12) Depth of grave. Except by special permission from the state department of health no interment of any human body shall be made in any public burial ground unless the distance from the top of the box, or any other type of container in which the casket is placed, is at least three feet from the natural surface of the ground.

NOTE: The preceding rule shall not apply when a metal, concrete, or cement vault is used.

12.2(156)T.XXVI Funerals.

12.2(1) Communicable diseases such as diphtheria, scarlet fever and meningitis are regarded as being spread from person to person through transfer of the causative germ (through speech, coughing, sneezing) from the throat of the living, infected individual (patient or carrier) to others who are susceptible.

It is improbable that a dead body plays any part in transmitting disease to people in the same room or building. A possible exception to the foregoing statement might be the body of a patient who had died of smallpox in the severe form; the hazard of exposure in such instance would be limited to the embalmer or person who actually handled the body and who was not known to be immune through successful vaccination and revaccination.

12.2(2) Regulations with reference to funerals are as follows. Recommendations and regulations pertaining to funerals when death is attributed to communicable diseases including anthrax, diphtheria, meningococcus meningitis (cerebrospinal fever), poliomyelitis (infantile paralysis), scarlet fever and smallpox, are as follows:

a. In consideration of the fact that a dead body ordinarily plays no part in the

spread of infection or of communicable disease, a hermetically sealed casket should not be required.

b. Persons who have been in the isolated area may be released from isolation for the purpose of accompanying the body to a funeral home, church or cemetery, provided that they:

(1) Use a separate car or means of conveyance;

(2) Remain in separate room or separate from the public and avoid nearness to others in attendance;

(3) Return to the area of isolation and remain there until premises are released from isolation.

c. When death is caused by meningitis of above-mentioned type, scarlet fever, diphtheria, poliomyelitis, or smallpox, the casket should remain closed when service is held indoors.

Special arrangements may be made for members and relatives of the immediate family to view the remains prior to the funeral service.

12.3(156)T.XXVI Unclaimed bodies for scientific use.

12.3(1) When is body unclaimed?

a. If the deceased did not express a desire that his body be buried or cremated.

b. If relatives or friends of the deceased did not request that he be buried or cremated.

12.3(2) Expenses by relatives. When relatives such as father, mother or children, who are financially able, request body to be buried or cremated they should pay expenses for burial or cremation.

12.3(3) Obtaining county relief. When relatives request burial or cremation and are not financially able to pay the expense then same should be paid out of the poor funds of the county, provided, of course, that application was made by said relatives in the same manner as in cases for relief for the support of the poor.

12.3(4) Expenses by friend. When friends of the deceased request burial or cremation, they either have to pay expenses or make application in the same manner as is made for the support of the poor.

12.3(5) Friend distinguished from casual acquaintance. Friend should be construed to mean one who has been more or less closely associated with the deceased during his lifetime as distinguished from one who was only a casual friend or acquaintance.

12.3(6) Delivery of bodies for scientific purposes. Every coroner, funeral director, and managing officer of every public asylum, hospital, county home, penitentiary or reformatory, as soon as any dead body shall come into his custody, which is unclaimed and may be used for scientific purposes, shall at once notify the state department of health.

NOTE: The above rule does not relieve the funeral director of the responsibility of trying to locate the nearest relatives or friends of the deceased.

12.3(7) Department instructions. When the department receives the notice, you will be instructed as to disposition of the body. If body is consigned to the State University Medical College, Iowa City, or to Des Moines Still College, Des Moines, you should immediately notify them to send you a shipping case.

12.3(8) Expenses incurred by funeral director. The necessary expenses, such as telephone calls, telegrams, and shipping expenses, shall be paid by the college. Persons preparing body to ship will expect to receive a reasonable fee for their services, the fees to be paid by the college receiving the body.

12.4(156)T.XXVI Disinterment.

12.4(1) Permits requested in all cases. No person shall disinter the dead body of a human being unless he is in possession of a written permit issued by the state department of health or by an order of the district court of the county in which the body is buried. All applications must be made upon the proper blank forms provided by the state department of health and must in all cases be signed by the next of kin of the deceased.

12.4(2) Rules and regulations — disinterment permits.

a. Permit to disinter will be issued only to a licensed embalmer, and then disinterment must in all cases be done under his personal supervision.

b. A separate application must be made for every body.

c. Names of persons and places must be written plainly so that no mistake can be made in the permit.

d. These applications for permits will be furnished on request from the state department of health.

e. Licensed embalmers will save delay and trouble in the removal of bodies by strictly conforming to these instructions.

f. Errors or omissions will necessitate returning the application for correction.

g. No permit is necessary to remove a body from any mausoleum, public or private receiving vault for burial in the same cemetery.

12.4(3) Delivery of disinterment permit. The licensed embalmer shall deliver the disinterment permit to the person in charge of the cemetery before disintering any body therein. When a body is to be moved from one cemetery to another the lower half of the permit is turned over to the sexton in charge of the cemetery in which the body is to be interred. If disinterment or reinterment takes place in the same cemetery, sexton retains the entire permit. If disinterred body is to be shipped by common carrier to a place outside of Iowa, only the upper half of the permit is furnished by the state department of health as the department cannot authorize a burial in a place over which it has no jurisdiction. In such cases it will be necessary to use a regular transportation of corpse permit.

12.4(4) Removal of body from funeral home or repository. Whenever a body is placed in a repository in a funeral home which is to be removed later for burial, a disinterment permit is to be obtained before the body is moved.

12.5(156)T.XXVI Transportation of dead.

12.5(1) All dead bodies except those addressed to the anatomical department of any institution in this state must be embalmed before shipment.

12.5(2) A copy of the original death certificate on the standard certificate of death form, signed by the attending physician, permit of local board of health or registrar, and a transit label signed by the shipping funeral director, and initial baggage agent, printed on strong paper, supplied through the state department of health, shall be required for the transportation by common carrier of bodies of persons dying in this state. The death certificate shall contain such information as is required in the standard form of death certificate if obtainable. The health officer's or registrar's permit shall authorize the transportation of the body of the person described in the physician's certificate. The shipping funeral director shall state on the shipping label how the body is prepared, and the local baggage agent shall state thereon the route, name and address of escort.

The physician's and health officer's or registrar's permit shall be given the escort, to be delivered with the body at destination. The shipping label shall be securely attached to the outside case. If the body is sent by express, the physician's certificate and the permit shall be attached to the express waybill and declared with the body at the destination, and the shipping label shall be attached to the outside case.

NOTE: If a body has been buried for twenty years and over and it is to be disinterred and shipped, see your local baggage agent as to rates of shipment. It is the understanding of the department that in many cases money may be saved if body is shipped as first class merchandise.

12.5(3) The transportation of bodies dead of diseases mentioned in 12.1(3)T.XXVI shall be thoroughly embalmed with an approved disinfectant fluid, all orifices shall be closed with absorbent cotton, the body shall be washed with a disinfectant fluid, enveloped in a sheet saturated with the same, and placed at once in the casket, which shall be immediately closed.

12.5(4) No disinterred body, dead from any disease or cause, shall be transported by common carriers, unless approved by health authorities having jurisdiction at the place of disinterment, and a transit permit and transit label shall be required as provided in 12.5(2)T.XXVI.

12.5(5) The outside case may be omitted in all instances when the body is transported in funeral director's service vehicle.

12.5(6) Every outside case shall bear at least four handles, and when over five feet six inches in length shall bear six handles.

12.5(7) An approved disinfectant fluid shall contain not less than five percent formaldehyde gas; the term embalming as employed in these rules shall require the injection by a licensed embalmer of not less than ten percent of the body weight for bodies of persons dead of disease, in 12.5(3)T.XXVI, injected arterially, in addition to cavity injection; not less than six percent of the body weight injected arterially in all other cases, in addition to cavity injection, and ten hours shall elapse between the time of embalming and the shipment of the body.

12.5(8) The attached form of death certificate, health officer's or registrar's permit, and label as described herein, with these rules printed thereon, shall be used in this state for shipment of bodies as herein provided.

12.5(9) The use of the combination ambulance hearse is approved by the state department of health, provided it is operated in accordance with the rules and regulations of the local health officer.

12.5(10) *Burial of ashes.* The ashes of a cremated body shipped into this state shall be handled in the same manner as other shipped-in bodies.

The ashes of a cremated body shipped from points within the state shall be handled in the same manner as other bodies.

12.5(11) *Burial of several bodies in same grave.* By law each cemetery board or association has the power to make rules and regulations governing the control and operation of the cemetery or cemeteries under their jurisdiction. They may by rule or regulation permit or prohibit such burials.

12.5(12) *Bodies shipped to foreign countries.* Whenever a body is to be shipped to a foreign country it is necessary for the licensed embalmer to wire the official representative of the respective country at the port of embarkation asking for permission to ship the body. The name of deceased, date of death and cause of death must be stated. When authority is received, another wire is sent furnishing name of deceased, date of death, cause of death, time of departure from shipping point, approximate time of arrival at port and railroad over which the body is being transported. The name of the boat on which body is to be shipped should also be stated, if known.

12.5(13) Any violation of this rule shall be deemed a misdemeanor.

[Filed prior to July 1, 1952; amended February 24, 1958, June 10, 1960]

CHAPTER 13

FUNERAL DIRECTORS AND EMBALMER EXAMINERS

13.1(147, 156)T.XXVI Registration.

13.1(1) Any person desiring to enter either the funeral directing or embalming profession shall be required to appear before the

board of funeral directors and embalmer examiners for a personal interview and registration, prior to entering a college of mortuary science, approved by the Iowa state board of funeral directors and embalmer examiners. This interview to take place at a regular board meeting at the offices of the State Department of Health in Des Moines, Iowa. After the applicant has been approved by the board and the required registration fee of five dollars has been paid to the state department of health, a certificate of registration will be issued to the applicant.

13.1(2) All certificates of registration for funeral directing or embalming will expire one year from date of issuance of the certificate by the state department of health. Re-registration, which must be consecutive and limited to one year only, may be granted by special approval of the board of funeral directors and embalmer examiners.

13.1(3) *Premortuary college educational requirements.* One academic year, of thirty-six weeks or a minimum of thirty semester hours, of instruction in a recognized college, junior college, or university, in a course of study approved by the board; or have equivalent education as defined by the board. After September 1, 1955, have completed two academic years of thirty-six weeks each or a minimum of sixty semester hours of instruction in a recognized college, junior college, or university, in a course approved by the board or have equivalent education as defined by the board.

13.2(147, 156)T.XXVI Examinations.

13.2(1) All applications for examination must be made upon the official forms supplied by the State Department of Health, Statehouse, Des Moines, Iowa.

13.2(2) These blanks, properly filled in, shall be filed with the state department of health, together with satisfactory evidence of the required educational ability. The examination fee of ten dollars must be enclosed with the application, and such fee and application must be filed with the state department of health at least fifteen days prior to the date of examination.

13.2(3) Applicants must present a diploma and transcript of grades to the state department of health with their application, showing the completion of training in a college of mortuary science, approved by the Iowa state board of funeral directors and embalmer examiners. (Photostatic copies of the diploma and transcript of grades will be accepted.)

13.2(4) Before commencing the examination, each applicant will be given a confidential number, which he shall inscribe at the upper left-hand corner of each page of manuscript, and no other marks shall be placed on any paper whereby the identity of the candidate may become known.

13.2(5) The examination shall consist of three sections. Embalmers:

a. Written examinations, which shall consist of an adequate number of questions as prepared by the board of funeral directors and embalmer examiners on required subjects.

b. Oral examination, which shall be given in proper manner by the members of the board.

c. Practical examination, which shall consist of demonstration and operative technique on a dead human body as directed. Restoration, cosmetic effect, lighting, casketing, and such other procedures as members of the board of funeral directors and embalmer examiners may feel necessary.

13.2(6) Funeral directors examination shall consist of two sections:

a. Written examinations, which shall consist of an adequate number of questions as prepared by the board of funeral directors and embalmer examiners on required subjects.

b. Oral examination, which shall be given in proper manner by the members of the board.

13.2(7) Applicants shall be examined in such subjects as the board of funeral directors and embalmer examiners shall prescribe, which shall include the following:

a. *Embalmers.* The examination shall include the subjects of anatomy, practical embalming, restorative art, sanitation, public health, business ethics, and such other subjects as the board may designate and the laws of the state of Iowa and rules relating to communicable diseases, quarantine and causes of death.

b. *Funeral directors.* The examination shall include the subjects of funeral directing, burial or other disposition of dead human bodies, sanitary science, public health, transportation, business ethics, and such other subjects as the board may designate and the laws of the state of Iowa and rules relating to communicable diseases, quarantine and causes of death.

13.2(8) A certificate will not be granted to an applicant who falls below seventy-five percent in any one subject, which must be retaken at the next regularly scheduled examination. Should the applicant fall below seventy-five percent in more than two subjects, he will be required to rewrite all subjects at the next examination.

13.2(9) An applicant failing in his first examination shall be entitled to a second examination without filing a new application or payment of fee. The student must be seated, under this arrangement, at the next regular examination immediately following the failure.

13.2(10) An applicant detected seeking or giving help during the hours of examination will be dismissed and his papers canceled but he will be entitled to return for examination within fourteen months.

13.2(11) The written examination is counted as three-fifths of the resultant, the oral

as one-fifth, and the practical as one-fifth, of the final tabulation.

13.2(12) At the conclusion of the examination each candidate will be required to swear to the following by affixing his signature:

Declaration of Honorable Conduct in Taking Examination.

We, the undersigned, each and severally declare that we are applicants for certificate from the Iowa State Department of Health, as certified to it by the State Board of Funeral Directors and Embalmer Examiners, authorizing us to practice Funeral Directing and Embalming in Iowa, and that we were present and took the examination held in Des Moines, Iowa,, 19....

We further declare upon honor that during said examination we neither received nor extended aid to others nor resorted to any unfair means whatsoever to secure the required ratings to enable us to pass.

We further declare that we did not see any of the questions used at this examination until they were handed out by the examiners.

13.2(13) A list of accredited schools of mortuary science, approved by the board of funeral directors and embalmer examiners shall be furnished the Director of Licensure and Registration, State Department of Health, Des Moines, Iowa, at their first regular meeting after July 1, each year.

13.3(147, 156) T.XXVI Studentship.

13.3(1) *Embalming.*

a. The applicant must serve a minimum of one additional year of studentship under the direct supervision of a licensed embalmer in good standing in the state of Iowa.

b. The applicant shall during this studentship, arterially embalm not less than twenty-five human bodies, under the direct supervision of his preceptor and report on blanks furnished by the state department to the secretary of the board quarterly.

c. Before being eligible to take the practical portion of the embalmers examination, he must have filed his twenty-five completed case reports with the secretary of the board.

13.3(2) *Funeral directors.*

a. The applicant must serve a minimum of one additional year of studentship under the direct supervision of a licensed funeral director in good standing in the state of Iowa.

b. The applicant shall during this studentship, direct or assist in the direction of not less than twenty-five funerals under the direct supervision of his preceptor and report on blanks furnished by the state department of health to the secretary of the board quarterly.

The course of studentship required under these regulations for embalmers and funeral directors may be taken concurrently.

No licensed embalmer shall permit any person in his employ or under his supervision or control to serve him as a student in embalming or funeral directing unless that person

has a certificate of registration as a registered student, from the state department of health.

No licensed embalmer or funeral director or firm of embalmers or funeral directors shall have more than one student embalmer or student funeral director for the first 100 bodies embalmed or funerals conducted per year, and with a maximum of two students per firm.

No registered student shall advertise or hold himself out as a registered embalmer or funeral director or use the degree L.E. or F.D. or any other title or abbreviation indicating that he is an embalmer, or funeral director.

Every person who is registered as a student with the state department of health shall have his certificate or registration posted in a conspicuous place in his preceptor's place of business.

Studentship begins upon approval and due notification by the board. Notice of termination of service; application for change of preceptor; and any other alteration must be made in writing and approval granted by the board before the status of the student is altered.

When, for any valid reason, the board of funeral directors and embalmer examiners feel that the education of a registered student being received under the supervision of his present preceptor, might be detrimental to the student and/or the profession at large, such student will be required to serve the remainder of his studentship under the supervision of a licensed embalmer or funeral director meeting the approval of the board.

13.4(147, 156)T.XXVI Reciprocity rules.

13.4(1) All applications for reciprocity licenses shall be made on the official forms supplied by the state Department of Health, Statehouse, Des Moines, Iowa.

13.4(2) All applicants for reciprocity licenses will be required to pass the oral and practical examination before this board.

13.4(3) The application form properly filled in, accompanied by (a) a fee of twenty dollars, (b) the state licensing certificate (or a duplicate copy of same) of the state from which applicant desires to reciprocate and (c) the mortuary college diploma or in lieu thereof a certified statement from the authorities of the mortuary college regarding the issuance of the diploma and the date of same, shall be filed with the state department of health at least fifteen days prior to date of examination or board meeting.

13.4(4) All applicants for reciprocity licenses must hold original license obtained upon examination in the state from which they reciprocate. Such examination shall have covered substantially the same subjects in which an examination is required in Iowa, showing the applicant has attained a general average of seventy-five percent or above.

13.4(5) Each applicant must furnish certified evidence of five or more years of actual practice in the state from which he desires to reciprocate, immediately preceding the filing

of his application for reciprocity and must be vouched for by the board of funeral directors and embalmer examiners of this state. Applicant will also be required to give good sufficient reasons for desiring license by reciprocity.

13.4(6) An applicant holding an original license for less than five years from a state which has entered into a special agreement with the state of Iowa, and who has met all educational requirements of the state of Iowa, may be seated to take the entire examination upon approval of application by his state board and the Iowa board of funeral directors and embalmer examiners.

13.4(7) The statements made in the application must be reviewed and verified by the secretary of the state examining board or authorized persons issuing the original certificate, who will also certify under seal, as to the schedule of subjects in which the applicant was examined, and the ratings given thereon and the general average attained.

13.4(8) An applicant who has taken two or more examinations before this board and failed to attain at either a general average of seventy-five percent, and has subsequently obtained a certificate from an examining board of another state, shall not be eligible for admission to this state under reciprocal agreements existing with such state until five years from the date of his last examination by this board, and in all cases the Iowa state board of funeral directors and embalmer examiners reserves the right to review the examination papers and ratings upon which said certificate was granted, before accepting the same. The same privilege is hereby accorded the examining boards of the states with which the Iowa board reciprocates.

13.5(147, 156)T.XXVI Reinstatement. Reinstatement may be obtained without examination. Application to be made to the state department of health on the proper blank. All applications must have the approval of the state board of funeral directors and embalmer examiners.

13.6(147, 156)T.XXVI Code of ethics. Adopted by the Iowa state board of funeral directors and embalmer examiners meeting in executive session at the Statehouse, Des Moines.

Editor's Note: Copies may be obtained by addressing the board at the Statehouse, Des Moines, Iowa.

[Filed prior to July 1, 1952]

CHAPTER 14

Reserved for future use

CHAPTER 15

COSMETOLOGY EXAMINERS

15.1(147)T.XXVI The board of cosmetology examiners will grant their approval for the issuance of an original school license to be

issued by the Iowa state department of health, when the conditions hereinafter set out have been fully complied with and met; likewise the annual reissuance of a school license will be recommended by the board to the state department of health, when there is full compliance with the following rules pertaining to the operation of an approved school.

15.1(1) Cosmetology shops may be owned and maintained by the license holder of a school of cosmetology but no such shop shall be operated in connection with the school.

15.1(2) The schoolrooms shall be large enough to properly accommodate all of the enrolled students, and be so equipped as to provide for practical work, lectures and demonstration purposes. A separate room or rooms must be maintained for study and lecture purposes.

15.1(3) The daily class hour schedule, which shall be posted in the classroom and shall consist of eight hours instruction six days each week (Sunday excepted), and in no week shall a student be given credit for more than fifty-four hours. Students, absent for legitimate reasons, shall be privileged to make up any lost time not to exceed six hours in any one week, so as to permit them to complete their training with their regular class.

15.1(4) The course of study in an accredited school shall consist of no less than 2,100 hours training, and no school will be approved by the board until it meets the requirements of study as set out in the following curriculum:

Curriculum	Hours
Shampooing (Theory and practical class theory)	100
History of marcelling	1
Facial massage (Theory and practical class theory)	50
Facial massage (Practical)	100
Electrical devices (Theory and practical class theory)	25
Anatomy and scalp treatment (Theory and practical class theory)	25
Scalp treatment (Practical)	100
Manicuring and hand and arm manipulation (Theory and practical class theory)	35
Manicuring (Practical)	40
Hair tinting, coloring, and bleaching (Theory and practical class theory)	75
Hair tinting, coloring, and bleaching (Practical)	150
Permanent waving (Theory and practical class theory)	559
Permanent waving (Practical)	40
Finger waving and hairdressing (Practical class theory)	40
Finger waving and hairdressing (Practical)	200
Haircutting and shaping (Practical class theory)	40
Haircutting and shaping (Practical)	130
Sanitation and use of antiseptics (Theory)	30
Sanitation and use of antiseptics (Practical)	55

Written and oral tests on work	50
Iowa law	20
Business management and salesmanship .	110
Hours left to the discretion of school owner	165
Total Hours	2100

15.2(147) T.XXVI Minimum school equipment. Equipment for classroom of thirty students shall consist of at least:

Four modern facial chairs with stool for each

Four lavatories with corresponding shampoo equipment

Twenty-four soap dispensers

Two towel cabinets

Two covered towel hampers

Two cabinets for facial cream, lotion, etc.

Six trays for facial supplies

Twelve hairdressing chairs or more

Eight mirrors

Two dry sterilizers in dispensary

One covered flat wet sterilizer, large

Twelve covered containers for hair pins

Twelve covered waste containers

Twenty-four covered sanitary containers for fingerwave lotion

Ten dryers (upright)

Two high frequencies

One vibrator (optional)

Three electric clippers

One scalp and facial steamer

Two croquignole permanent wave machines

Three cold wave methods, or more

One therapeutic light

Equipment for sterilizing room shall consist of:

Lavatory

Stove

Large wet sterilizer

Large dry sterilizer

Covered soap container

Individual paper towel container

Closed cabinet and covered hamper for towels

Covered waste container

Manicuring equipment shall consist of:

Four manicure tables, fully equipped

Lights

Bowls

Covered container for supplies

Individual brushes, individual buffers

Chair and stool for each table

Miscellaneous equipment:

Closed cabinet for permanent wave equipment

Two dozen combs aside from students' individual combs

Two dozen brushes

15.3(147) T.XXVI.

15.3(1) Instructors in approved schools of cosmetology, in addition to being licensed in the state of Iowa as cosmetologists to teach theory shall:

Be twenty-one years of age

Be a graduate of an accredited high school

Have 864 additional hours of teacher's training in cosmetology

Obtain certification from school of training, with grades in final examination submitted with application for instructors' permit to the division of cosmetology

By attending a workshop provided by the division of cosmetology annually renew instructor's permit.

15.3(2) Instructors in practical work in approved schools in addition to being licensed as cosmetologists in the state of Iowa shall:

Be twenty-one years of age

Be a graduate of an accredited high school

Have one year's experience in the field of cosmetology

Have three weeks' advanced schooling, including: One week of advanced tinting, one week on advanced permanent waving or facial, one week of advanced hair styling.

The instructors' permit must be renewed each year by attending one week of advanced training in any of the above-mentioned subjects, and sending proof of compliance to the division of cosmetology.

15.3(3) The number of instructors for each school shall be based on total student enrollment, with a minimum of two instructors for every thirty students enrolled.

15.3(4) A school shall not permit its instructors to work on its patrons, except when instructing or otherwise assisting students in said school.

15.3(5) Schools must file an enrollment card and a monthly report card for each licensed cosmetologist taking a teachers' training course. These cards must be on file in the state cosmetology office on or before the fifth of any month, subsequent to the beginning of the special training.

15.4(147)T.XXVI Students.

15.4(1) No student shall be given double time credit for working after school hours.

15.4(2) All students must be given their final school examination not later than upon the completion of 2,100 hours training and issued their diploma after receiving a passing grade.

15.4(3) No student shall be called from theory class to work on the public.

15.4(4) All students must be taught two types of pin curls.

15.4(5) All examination papers will be graded according to the confidential number, starting with No. 1.

15.4(6) All students must comb out the hairdress of patrons, whenever possible.

15.4(7) All work done by students on the public must be under the supervision of an instructor at all times.

15.4(8) Anyone taking instructors' course is not allowed to work on patrons for personal compensation in the school.

15.4(9) No students shall be allowed to work on the public until such time as they have received 200 hours training.

15.4(10) No brush-up students shall be allowed to accept compensation from either school or patron for work done in the school.

15.4(11) The student, upon successfully passing the school examination and receiving the school diploma may, pending taking the state board examination, begin the teachers' training course.

15.4(12) Effective January 1, 1953, all students enrolling in a cosmetology school must have two years high school training before being eligible for the Iowa cosmetology examination.

15.5(147)T.XXVI Textbooks and charts. Adequate standard textbooks and charts must be provided by the school in a reference library for the use of the students. All schools must have a class schedule, one on file in the cosmetology office, Statehouse, Des Moines, Iowa, and a duplicate on display in the school. State cosmetology office to be notified of any changes in schedules.

15.6(147)T.XXVI The school shall furnish each student with a kit containing all the necessary equipment, also standard textbook in theory and electricity. (Pertinent pamphlets will be furnished upon receipt of application.)

15.7(147)T.XXVI Enrollment card and monthly report cards. Schools must send to the state department of health, division of cosmetology, an enrollment card for each student at the time of enrollment, giving name, age, and address of said student, along with the date of enrollment in said school; and on or before the fifth of each month, all schools must submit a monthly report card for each student, giving an accurate record of the hours training for the month. Report cards furnished by the department are to be used only for filing reports with the cosmetology division and are not to be used for any private purpose.

15.8(147)T.XXVI Equipment necessary for examination. Students taking the state cosmetology examination shall have at their disposal for examination the following equipment:

One pair haircutting shears

One haircutting comb

One utility comb

One hair brush

Two large towels

Necessary standard equipment and supplies for two cold waves and two croquignole permanent wave wraps

Necessary standard equipment for complete manicure

Hairnet, hairpins and wave lotion

One uniform

One photograph

Pen and ink

Students taking the examination must have clean hair and wear a simple hairdress.

15.8(1) *Rules and regulations of the board pertaining to examinations.* All applications for examination must be made upon the official

form supplied by the state Department of Health, Statehouse, Des Moines, Iowa.

15.8(2) Application forms properly filled out shall be filed with the state Department of Health, Cosmetology Division, Des Moines, Iowa, with the fee of ten dollars, at least fifteen days before the date of examination, as required by section 147.29 of the Code.

15.8(3) All students who can complete their training prior to the date of examination may qualify for the examination if they file their applications at least fifteen days prior to the examination date. However, the exact date of graduation should be shown on the application.

15.8(4) The statements made in the application form shall be subscribed and sworn to by the applicant and attested under seal by a notary public.

15.8(5) A certificate of good moral character, signed by two competent persons, personally acquainted with the applicant, including a recent photograph of the applicant, must be attached to the application.

15.8(6) No candidate shall under any circumstances enter the examination room more than thirty minutes late unless excused by the examiners, and no candidate shall leave the room within thirty minutes after the beginning of the examination, or the distribution of the question papers, and no candidate shall leave the room during the examination unless accompanied by one of the examiners.

15.8(7) Every applicant for examination must be able to speak, read and write the English language, or in lieu thereof furnish an interpreter.

15.8(8) The candidates will be seated at individual tables or desks and will not be permitted to communicate with each other during the hours of examination, or to have in their possession help of any kind. Any applicant detected in seeking or giving help during the hours of examination will be dismissed and his papers canceled.

15.8(9) All examinations shall be in writing in the English language and shall be written with pen and ink. Special examination paper will be supplied by the department, but pens and ink must be provided by the candidate.

15.8(10) Before commencing the examinations, each applicant will be given a confidential number which he shall inscribe at the upper left-hand corner of each page of manuscript; no other marks shall be placed on any paper whereby the identity of the candidate may become known. The pages are to be numbered in the upper right-hand corner.

15.8(11) Out-of-state requirements. All out-of-state applicants making application for the Iowa state board examination must be licensed in the state in which they received their training and they will be given credit for

the number of hours required by their state at the time they took their training. The balance of the training must be taken in an approved Iowa cosmetology school. Even though the applicant has had more hours training than was required by that state, he will be given credit in Iowa only for the number of hours required by that state.

15.8(12) Any graduate taking the state board examination, who desires to practice cosmetology prior to examination, must obtain a temporary permit, fee for which is one dollar.

15.8(13) From and after September 1, 1950, an applicant to pass the examination must obtain a grade of not less than seventy percent in any one written section and a total average grade of seventy-five percent in all sections. If an applicant fails to attain the required grade in one or more sections, he shall be entitled to be re-examined in the section or sections in which he failed, at an examination within a period of fourteen months after the first examination without further application or examination fee.

15.8(14) Any student arriving more than thirty minutes late for either the theory or practical examination will be disqualified from finishing the examination. Any student carrying out any examination questions or answers will be disqualified. In conducting the state board examinations, the first day will be devoted to the theory examination, and the following days will be devoted to practical examination, according to the numbers given out to the students by the board.

15.8(15) Any candidate failing in his first examination shall be entitled to a second examination within fourteen months without the filing of a new application fee.

15.8(16) The examination rooms will be closed to everyone except the students and examiners and members of the division of cosmetology.

15.8(17) At the conclusion of the examination each candidate will be required to sign the following:

Declaration of Honorable Conduct in Taking Examination

We, the undersigned, each and severally declare that we are applicants for certificates from the Iowa State Department of Health, as certified to it by the State Board of Cosmetology Examiners, authorizing us to practice cosmetology in Iowa, and that we were present and took the examination held at, Iowa, on.....
....., 19.....

We further declare upon honor that during said examination we neither received nor extended any aid to others nor resorted to any unfair means whatsoever to secure the required ratings to enable us to pass.

We further declare that we did not see any of the sets of questions used at this examina-

tion until they were handed out by the examiners.

[Filed prior to July 1, 1952; amended April 21, 1953, May 15, 1953, October 1, 1959]

CHAPTER 16

SANITARY CONDITIONS IN COSMETOLOGY SCHOOLS AND PLACES WHERE COSMETOLOGY IS PRACTICED

16.1(157)T.XXVI Rules and inspection reports. The owner or manager of every cosmetology school and place where cosmetology is practiced shall keep a copy of these rules to be furnished by the state department of health. All inspection sheets and sanitary rules shall be posted in a place so that they may be readily seen by the patrons. It is the responsibility of the manager to see that these rules are enforced. This includes all cosmetology schools and places where cosmetology is practiced.

16.2(157)T.XXVI Proper quarters. Every cosmetology school and place where cosmetology is practiced shall be well-lighted, well-ventilated, and kept in a clean, orderly and sanitary condition at all times. All cosmetology work shall be practiced only in quarters especially equipped for such services.

16.2(1) Practice of cosmetology in home.

a. No cosmetology establishment shall be maintained in a home, unless a separate room is provided for that purpose. Such establishments shall have an outside, separate entrance leading directly to the establishment and any inside doors of said establishment leading to living quarters must be closed at all times during the business day.

b. From and after January 1, 1968, cosmetology shall not be practiced in a home, unless in addition to the aforesaid requirements, all doors of such establishments, leading to the living quarters are permanently sealed. This provision shall not apply to cosmetology establishments within a home in operation before January 1, 1968, unless the ownership of that establishment changes.

16.2(2) Practice of cosmetology in connection with other business. Cosmetology establishments operated in connection with any other business, except where food is handled, shall be separated either by complete or partial partitions. Should the cosmetology establishment be operated immediately adjacent with a business where food is handled, such establishment shall be entirely separated by a closed partition, and the door to such cosmetology establishment shall be closed at all times except when used for ingress and egress.

16.3(157)T.XXVI Sanitation and disinfection. Except as set forth in 16.3(3)T.XXVI all instruments in use in any cosmetology school or place in which cosmetology is practiced shall each time after use, be cleansed thor-

oughly with soap and hot water and then be immersed at least twenty minutes in an approved disinfectant solution in a covered flat container large enough to immerse completely all instruments, after which they should be dried and placed in a closed cabinet. All disinfectant solutions shall be labeled. The following disinfectant solutions have been approved by the state department of health: Formalin, ten percent solution; isopropyl alcohol, seventy percent solution; potassium mercuric iodide, one to one thousand solution; mercuric bichloride, one to one thousand solution; saponated cresol, two percent solution; or other solutions approved by the state department of health.

16.3(1) Every cosmetologist shall wash his hands with soap and water immediately before serving each patron.

16.3(2) Head coverings, hair pins, clips, rollers and curlers shall be washed and sanitized after each use as above directed.

16.3(3) All metallic instruments with a cutting edge shall be kept clean by wiping carefully after each use with cotton saturated with an approved disinfectant solution. It is recommended that the solutions used with metallic instruments be the isopropyl alcohol, seventy percent solution, or saponated cresol, two percent solution.

16.4(157)T.XXVI Towels, containers, and other supplies. A clean and freshly laundered towel shall be used for each patron. A closed cabinet or drawer shall be provided for clean towels and linen and a covered hamper for soiled towels and linen. Whenever a haircloth or cape is used, as in cutting the hair or shampooing, a newly laundered towel or tissue paper neck strip shall be placed around the neck to prevent the haircloth or cape from touching the skin.

16.4(1) The headrest of every cosmetology chair shall be protected with fresh clean paper or cloth before its use for any patron. Rubber protective headrests are not permitted.

16.4(2) If a gown is used, each patron shall be furnished a freshly laundered gown.

16.4(3) Every operator shall have a minimum of twelve finger waving combs and brushes.

16.4(4) The use of dusters, common powder puffs, nail buffers, and sponges is hereby prohibited.

16.5(157)T.XXVI Dispensers. Fluids and powders shall be applied to patrons from a shaker-type or aerosol dispenser. Creams and other semisolid substances shall be removed from the containers with a clean spatula or similar article. Removing such substances with the fingers is prohibited. Creams shall be kept covered when not in use.

16.6(157)T.XXVI Permanent wave equipment. Spacers and rods, including rods used

in cold waving permanent methods, shall be cleansed with soap and hot water after each use and placed in a closed cabinet.

16.7(157)T.XXVI Haircutting department. Anyone maintaining a haircutting department within a cosmetology establishment shall observe all rules on sanitation as prescribed for cosmetologists.

16.8(157)T.XXVI Water — sewer. Every cosmetology school or place where cosmetology is practiced shall be supplied with an adequate supply of potable hot and cold water under pressure. Water shall be applied to a patron by the use of a spray. The sewage disposal system shall not create a nuisance or result in pollution of a stream or watercourse.

16.9(157)T.XXVI Equipment, fixtures, furnishings. Shampoo boards, bowls, floors, walls, fixtures, and furniture of all cosmetology schools and places where cosmetology is practiced shall be of a washable nature and kept clean at all times. Furnishings other than those required for the operation of the facility are prohibited. Laundry equipment shall be in a completely separate room from a place where cosmetology is practiced.

16.10(157)T.XXVI Communicable diseases. No person shall act as a cosmetologist who is known to be infected with a communicable disease. A patron with open sores such as occur with ringworm, impetigo or other communicable diseases, shall not be served in a public cosmetology establishment.

16.11(157)T.XXVI Other disease carriers. Dogs, except guide dogs for the blind, cats, birds, and other pets shall not be permitted in a cosmetology school or place where cosmetology is practiced.

These rules are intended to implement chapters 135 and 157 of the Code.

[Filed October 13, 1967]

CHAPTER 17

Reserved for future use

CHAPTER 18

BARBER EXAMINERS

18.1(158)T.XXVI Course of study. Each Iowa school of barbering approved by the Iowa board of barber examiners shall conduct a course of study of at least 1,800 hours to be equally divided over a period of nine months. Such course of study shall include the following:

- 18.1(1) Supervised practical instruction.** The following shall be included:
 - Scalp care and shampooing
 - Honing and stropping
 - Shaving
 - Facials, massage and packs
 - Haircutting.....
 - Hair tonics and singeing
 - Dyeing and bleaching
 - Hair styling

} 1,400 hours

18.1(2) Demonstrations and lectures. The following shall be included:

- Law, ethics, economics, equipment, shop management and history of barbering
- Sanitation, sterilization, personal hygiene and first aid
- Bacteriology
- Anatomy
- Skin, scalp, hair and their common disorders
- Electricity, as applied to barbering
- Chemistry and pharmacology
- Scalp care
- Honing and stropping
- Shaving
- Facials, massage and packs
- Haircutting
- Hair tonics and singeing
- Dyeing and bleaching
- Instruments, soaps, shampoos, creams, lotions and tonics

} 361 hours

18.1(3) Physician's lectures.

The course of study shall include lectures of at least one hour per week by a licensed medical doctor. } 39 hours

18.1(4) Grand total. Total 1,800 hours

18.2(158)T.XXVI Qualifications of managers and instructors. A manager or instructor of a school of barbering, approved by the Iowa board of barber examiners, shall be registered with the Iowa state department of health as an instructor in barbering or shall pass an instructor's examination given by said board. To qualify for an instructor's examination, applicant shall submit to the board satisfactory evidence as to character and ability to operate a school of barbering, shall be a high school graduate or the equivalent thereof and be the holder of an Iowa license to practice barbering for either a five-year period immediately prior to the application, or have six months' experience as an assistant instructor immediately prior to the application.

18.3(158)T.XXVI Assistant instructors. Temporary permits may be issued to assistant instructors in an approved school of barbering provided the following qualifications are furnished. The person shall be of good moral character, shall be a graduate of an accredited high school or the equivalent thereof, shall be a graduate of an approved school of barbering and the holder of an Iowa barber license. After six months as an assistant instructor, said person shall make application for an instructor's examination. If he should fail to receive a passing grade, he may continue as an assistant instructor until the next regular examination by the board. If he should fail the second examination, he is not eligible for another examination and shall discontinue all connections with the school.

18.4(158)T.XXVI Application for approval and licensing. An application for approval and

licensing of a proposed school shall be in writing and made to the board of barber examiners at its office in Des Moines, Iowa, for a hearing. Notice of the time and place fixed for a hearing shall be given to the applicant, and he shall appear in person before the board. At the hearing the applicant shall submit to the board the following information in typed form:

18.4(1) The exact location of the proposed school.

18.4(2) A statement of the maximum number of students proposed to be trained at any time as determined by the physical facilities.

18.4(3) Photostatic copy of the essential parts of all leases, with the lease of at least one year, or other documents, giving the owner of the school the right of possession of the premises.

18.4(4) Evidence that the applicant has sufficient finances to acquire the facilities and equipment required by the board and that finances are available to provide for operation of the proposed school for a minimum period of twelve months without income. Such evidence shall be presented by sworn affidavit of applicant and financial statement duly signed in affidavit form as to its truth and veracity.

18.4(5) A complete plan of the physical facilities to be utilized and as applied to sections relative to classroom and minimum equipment required.

18.5(147)T.XXVI Minimum equipment of school of barbering. Each school of barbering shall have the following minimum equipment:

18.5(1) One chair, lavatory and backstand, providing proper cabinet for immediate linen supply, and individual sterilizers for each chair. There shall be not less than ten such sets in the classroom equipped for practice on the general public.

18.5(2) One textbook of barbering for each student and instructor.

18.5(3) Electric equipment. One high frequency electrode, one twin vibrator, one dermal lamp, one scalp steamer, one infrared lamp.

18.5(4) One microscope.

18.5(5) Compressed air equipment for each barber chair.

18.5(6) Automatic lather mixer.

18.5(7) Complete supply of standard tonics, shampoos and cosmetics commonly used in barber shops.

18.5(8) Sufficient clean linen cabinet space.

18.5(9) One blackboard, not less than four by six feet in size.

18.5(10) One large bulletin board conspicuously located for posting rules and regulations, notices, and similar bulletins.

18.5(11) One set of record files.

18.5(12) One set of books used solely for history and activity of students.

18.5(13) One file for duplicate copies of reports sent to the state board of barber examiners.

18.5(14) The study and lecture room shall be equipped with the specified blackboard and charts showing illustrations of the skin, circulation of the blood, muscles and bones of the face, scalp, and neck. This room shall be used for the sole purpose of giving scientific instruction to students.

18.6(147)T.XXVI Miscellaneous requirements.

18.6(1) No school of barbering shall accept students nor be open for business until approved and licensed to operate as a school of barbering.

18.6(2) There shall be not more than two students enrolled for each barber chair installed in approved school of barbering.

18.6(3) No student shall be accepted unless he is at least sixteen years of age, has a tenth grade education or the equivalent thereof, and is of good moral character.

18.6(4) Each school of barbering shall maintain a library of suitable reference books including all of the required books later mentioned in curriculum.

18.6(5) Each school of barbering shall hold regular classes for the teaching of both the theory and practice of all phases of barbering.

18.6(6) No one in any way connected with a school of barbering shall guarantee positions to students nor guarantee financial aid in equipping a shop.

18.6(7) Instructors shall familiarize students with the different standard supplies and equipment used in barber shops.

18.6(8) No student shall receive pay nor be allowed any rebates, refunds or commissions on any money taken in at the barber chair for service rendered to patrons.

18.6(9) Each school shall advertise only under the designation of a barber school and shall display conspicuously at the entrance to said school a sign in plain, block display lettering at least one inch in height, as follows: "ALL WORK IN THIS SCHOOL DONE BY STUDENTS ONLY."

18.6(10) When school service prices are displayed or in any manner advertised by a school of barbering, they shall be followed by the words "STUDENT WORK" in lettering at least one-half the size of the lettering used to display the price.

18.6(11) Instructors, as well as students, shall be attired in washable uniforms, which must be kept clean and neat at all times during school hours.

18.6(12) All bottles and containers in use must be distinctly and correctly labeled, showing the intended use of the contents.

18.6(13) Smoking shall not be permitted in classrooms.

18.7(147)T.XXVI Attendance requirements.

18.7(1) All schools of barbering shall establish regular school hours. Any time lost by students shall be made up before diploma is issued.

18.7(2) Classes shall be held during daylight hours with the exception of the physician's lectures and demonstrations, which may be held during evening classes.

18.7(3) A minimum of five recitations per week of two hours each shall be given to all students. These periods shall include lectures, individual instruction and written examinations.

18.7(4) All examinations and other written papers shall be carefully graded and returned to students in order that they may see errors.

18.7(5) If a student enrolled in approved school of barbering should discontinue his attendance in the school and should desire to return after a period of thirty days, he shall not return until at such time that he could start with the regular class at the point in the textbook where he had previously left the school.

18.7(6) All students shall be given a complete course in barbering as prescribed in this curriculum.

18.7(7) No registered barber or student who has received an apprentice license as issued by the Iowa board of barber examiners may return to the school for postgraduate work unless it is for theoretical study only.

18.8(147)T.XXVI Records requirements.

18.8(1) Each school or college shall forward to the barber division, state department of health, a completed application for enrollment upon the date of admittance of student together with required credentials.

18.8(2) Each school shall keep a daily class record of each student showing the hours devoted to the respective subjects, the total number of hours in attendance, and days present and absent, which shall be subject to inspection by the examiners or representative thereof at any time.

18.8(3) An owner of a school shall furnish the state department of health at the end of each month the names of students therein, days absent by student, if any, and show the time devoted by student to each subject.

18.8(4) The manager of each school shall compile from his records a summary of each student's grades, hours and attendance, which shall be presented to the student upon graduation and which shall also be made a part of his application for registration by examina-

tion. The manager shall sign each copy of the required records and must certify said record is correct and that the student has received a diploma from his school.

18.9(147)T.XXVI Library requirements.

Each school of barbering operating in Iowa shall maintain a library for the students enrolled therein consisting of all the following:

First Text on Anatomy by Francis S. Wildner, M.D.; *Anatomy* by Dr. Henry Gray; *Electricity & Light* by Eberhart; *Salesmanship & Business Efficiency* by Know; *Civic Sociology* by Ross; *Building Citizenship* by R. O. Hughes; *Elementary Economics* by Carver and Carmichael; *Manual of Ethics* by MacKenzie; *Chemistry for Today* by McPherson, Henderson & Fowler; *the American Pocket Medical Dictionary* by Dorland; a standard dictionary; *Diseases of the Hair & Scalp* by Hubbard; *Standardized Textbook of Barbering* by the Associated Master Barbers and Beauticians of America; *Practical & Scientific Barbering Textbook* by the Journeymen Barbers, Cosmetologists, and Proprietors International Union of America; and current trade journals.

These rules are intended to implement chapters 135, 147 and 153 of the Code.

[Filed July 11, 1967]

CHAPTER 19

SANITARY OPERATION OF BARBER SHOPS AND BARBER SCHOOLS

19.1(158)T.XXVI Rules posted. The manager of each barber shop shall keep a copy of these rules posted in a conspicuous place in the shop.

19.2(158)T.XXVI License. Barbers shall display at their work cabinet the original license certifying the practitioner is a licensed barber; also the annual renewal. Barber shop licenses shall be in the name of the licensed operator and posted therein. An apprentice shall have a valid permit posted. One apprentice to each licensed barber; only two apprentices in any one barber shop.

19.3(158)T.XXVI Signs. Each barber school shall display a sign at its main entrance indicating a barber school; also a sign therein that barber services are given by students only.

19.4(158)T.XXVI Sanitation. Every barber shop shall be well lighted, properly ventilated, and kept in a clean, sanitary and orderly condition. All shops or schools established after July 1, 1967, shall have approved handwashing and toilet facilities accessible within the building. All shops established after July 1, 1967, shall have a minimum length of at least ten feet for a one-chair shop, fifteen feet for a two-chair shop, and five feet additional length for each additional chair and a minimum width of not less than twelve feet.

19.5(158)T.XXVI Quarters. Barbering shall not be practiced in a residence unless the shop is completely separated from living quarters

by a solid permanent partition. A direct outside entrance shall be provided.

19.6(158)T.XXVI Quarters adjacent to other business. A barber shop located in a room adjacent to a restaurant, tavern, or grocery shall be in a completely separate room. Doors between the barber shop and the aforesaid shall be rendered unusable.

19.7(158)T.XXVI Candy, cigars, beverages, etc. To be dispensed only from sealed packages.

19.8(158)T.XXVI Plumbing. Barber shops shall have modern plumbing and an adequate supply of both hot and cold running water connected with the local water system. In communities where a water system is not available, a pressure gravity system shall be installed of adequate capacity to provide water in sufficient force to thoroughly saturate linens. Drain pipes shall be connected directly with an approved sewerage system.

19.9(158)T.XXVI Combs and brushes. Combs and brushes must be cleansed; then immersed in an efficient disinfectant. Combs shall be left in the solution or in a sterile cabinet at all times when not in use. Use of the common hair brush is prohibited.

19.10(158)T.XXVI Instruments. Instruments of the profession shall be thoroughly cleansed and then immersed for at least one minute in an approved disinfectant before being used. When not in use, they shall be kept in a clean closed compartment provided for and used only for the storage of such equipment. Electric clipper plates shall be properly sterilized by the open-flame method.

19.11(158)T.XXVI Disinfectants. All containers must be kept clean and well filled with an effective recognized disinfectant. A separate container shall be provided for each practicing barber.

19.12(158)T.XXVI Shaving mugs. Shaving mug, soap, and brush shall be thoroughly rinsed with boiling water before each patron is served. Rubber or porous mugs are prohibited.

19.13(158)T.XXVI Bowls and strops. All cups, bowls and strops shall be kept clean at all times.

19.14(158)T.XXVI Dusters and brushes. The common neck duster or brush shall not be used in any public barber shop.

19.15(158)T.XXVI Hands. Every barber shall wash his hands thoroughly with soap and water before serving a patron.

19.16(158)T.XXVI Headrest. Each barber chair headrest shall be provided with a mechanical paper container and clean shaving paper.

19.17(158)T.XXVI Towels. Freshly laundered towels shall be used for each patron. In haircutting, shampooing, or similar activities, a freshly laundered towel or new neck strip shall be used to prevent the hair cloth from directly contacting the skin of the patron. Soiled towels shall not be left on lavatory or workstand but shall be immediately disposed of in a container for that purpose. All clean linens shall be kept in an enclosed dust-proof cabinet.

19.18(158)T.XXVI Styptic powder and alum. Alum or other material used to stop the flow of blood shall be used only in liquid or powder form.

19.19(158)T.XXVI Communicable diseases. A barber shall not practice who is infected with any communicable disease.

19.20(158)T.XXVI Other disease carriers. Dogs, cats, birds and other pets shall not be kept in a barber shop or school.

19.21(158)T.XXVI Managers' duty. It shall be the duty of each manager of a barber shop to ascertain that all barbers employed in the shop have an Iowa license to practice, and that all employees observe these rules and all other sanitary rules of the local board of health and state department of health.

19.22(158)T.XXVI Disinfectant solutions. All disinfectant solutions shall be labeled. The following disinfectant solutions have been approved by the state department of health; formalin, ten percent solution; isopropyl alcohol, seventy percent solution; potassium mercuric iodide, one to one thousand solution; mercuric bichloride, one to one thousand solution; saponated cresol, two percent solution; or other solutions approved by the state department of health.

[Filed August 10, 1956, amended July 11, 1967]

CHAPTER 20

Reserved for future use

HIGHER EDUCATION FACILITIES COMMISSION

CHAPTER 1

FEDERAL GRANTS FOR UNDER-GRADUATE FACILITIES

1.1(261) The construction and equipment grants programs.

1.1(1) The "state plan for the higher education facilities Act of 1963" adopted by the higher education facilities commission on

September 23, 1964, constitutes the basis for carrying out its functions under Title I of the higher education facilities Act of 1963 (public law 88-204) and applicable federal regulations.

1.1(2) Under part A, Title VI (public law 89-329), the commission administers a state plan to assist colleges and universities in obtaining federal grants for equipment and ma-

terials to improve undergraduate instruction. The commission assigns priorities, recommends grants and provides for hearings to applicants for funds.

1.1(3) Applicants for construction grants under Title I and instruction equipment grants under part A, Title VI may obtain state plans and application instructions from the Higher Education Facilities Commission Office, 201 Jewett Bldg., Des Moines.

CHAPTER 2

SCHOLARSHIP PROGRAM

2.1(261) A state-supported and administered scholarship program.

2.1(1) *Advisory committee.* An advisory committee selected from officers of Iowa secondary schools, public community colleges and vocational-technical schools, private colleges and universities, and state-supported universities, shall be established by the commission. Members are appointed to serve two-year terms with the exception of the elected presidents of the Iowa personnel and guidance association and the Iowa association of college admissions counselors, who serve only for their one year in office. The committee shall make recommendations for all procedures involved in administering the program.

2.1(2) *Application forms.* Application forms shall be made available to all high schools each fall and filing deadlines scheduled to allow for announcement of awards in the spring.

2.1(3) *Eligibility for honorary scholarship.* An applicant for a state scholarship must meet the following initial requirements:

a. Be a citizen of the United States and a resident of Iowa.

(1) The legal residence of a minor student shall be that of his parent(s) or guardian.

(2) Independent students over 21 and married students must furnish evidence of Iowa residency, i.e., state income tax return or voter's registration certificate.

b. Be a graduate of an accredited high school before the end of the summer preceding entrance into college.

c. Take such standard tests as may be required by the commission and have his scores reported to the commission.

d. Have his high school report his rank in class and recommendation concerning his good character and citizenship.

2.1(4) *Eligibility for monetary scholarship.* Having qualified academically, an applicant competing for a monetary award must meet the following additional requirements:

a. Be accepted for admission as a freshman student at a participating college, university or other institution in Iowa.

b. File a statement of family financial circumstances on forms designated by the

commission for the purpose of assessing his need for financial assistance.

2.1(5) *Criteria for awards.*

a. Academic potential for an applicant is determined by two factors, percentile rank in high school class and scores on a standard national test, combined in a six to four weighting ratio, respectively.

b. Financial need, defined as the difference between the applicant's resources and his anticipated expenses at the Iowa college of his choice, is evaluated on the basis of the confidential statement of family finances.

(1) An applicant's resources include the estimated amount of his parents' contribution toward college costs if he is a dependent, a minimum of four hundred dollars in self-help from the applicant and one-fifth of his personal assets, if any.

(2) College expenses include tuition and mandatory fees, room and board and a uniform allowance for other college-related expenses.

2.1(6) *Honorary and monetary awards.*

a. Honorary state scholarships are awarded to those applicants who qualify academically but do not meet the requirements for monetary awards, i.e., financial need and enrollment at an eligible Iowa institution, or who qualify fully but cannot be granted monetary awards owing to insufficient appropriated funds.

b. Monetary state scholarships are awarded to applicants who qualify both academically and financially, insofar as the appropriated funds permit.

(1) Monetary awards range from one hundred to eight hundred dollars, not to exceed tuition and mandatory fees at the institution selected by the recipient.

(2) Awards are prorated on a quarterly or semester basis and are paid directly to the institution after certification that the recipient is in attendance.

(3) If a recipient is dismissed or withdraws from college before completion of the term, his award or portion thereof shall be refunded to the state of Iowa in conformity with the institution's accepted policy on refunds.

(4) Upon the request of the recipient, a scholarship may be transferred from one participating institution to another at the beginning of any college term. The amount of the scholarship may be decreased, if expenses are lower than at the original college choice.

(5) A recipient may request a leave of absence for a maximum of one calendar year if illness, financial circumstances or other reasons beyond his control prevent his enrollment or force his withdrawal from college.

2.1(7) *Acceptance forms.* A monetary scholarship recipient is required to complete an acceptance form, reporting financial aids anticipated from other sources and agreeing to the terms of the award.

2.1(8) Eligible institutions. The following categories of Iowa institutions for post-high school education are eligible to participate in the state of Iowa scholarship program:

a. Institutions holding accreditation by the North Central Association of Colleges and Secondary Schools.

b. State-supported area community colleges and vocational-technical schools accredited by the state department of public instruction.

c. Schools of professional nursing accredited by the state board of nursing.

d. Institutions which, in the absence of one of the above accreditations, can present satisfactory evidence that they have been in operation at least two full academic years and have been granted the status of candidate for membership in the North Central Association of Colleges and Secondary Schools.

2.1(9) Renewal of state scholarships.

a. A state scholarship recipient may receive renewal of his award, to the extent that funds are available, provided that he is in satisfactory standing with his college and continues to demonstrate need for financial assistance.

b. Renewal applications will be sent to the student's home address in the spring and must be filed by the date indicated thereon.

c. Renewal awards will be re-evaluated annually on the basis of changes in college costs or financial circumstances of the student.

CHAPTER 3

IOWA MEDICAL TUITION LOAN PLAN

3.1(261) Tuition loans for Iowa resident students who agree to become general practitioners (family doctors) and practice in Iowa.

3.1(1) Eligibility requirements. Student must have been a legal resident of Iowa for at least six months before date of application, such residency to be determined either by legal domicile of parent or guardian or by certification of applicant's voting registration in the state and filing of Iowa state income tax return by applicant or his spouse.

3.1(2) Application form. Student must file with the higher education facilities commission an application for each academic year in which he requests a loan. Application must bear the signature of his college dean, certifying that the student has been accepted for enrollment or is enrolled in good standing.

3.1(3) Loan contract. A separate loan contract with the executive director of the higher education facilities commission shall be negotiated for each academic year in which tuition is borrowed under this plan. The contract, which must be signed and notarized, will affirm the following conditions:

a. The borrower plans to practice general medicine in Iowa for at least five years

after completion of his training, such training to include one year of internship either within or outside the state.

b. The full amount of the loan, less any canceled portion thereof, plus interest at seven percent per annum dating from issuance of the loan shall become due and payable according to the terms of the contract if the borrower discontinues medical training, enters a specialized field of medicine or establishes practice outside the state.

c. The borrower will notify the commission within thirty days of any change of address or intent to terminate his agreement.

d. If the borrower enters military service after completion of his medical training, the first two years of such service shall be applied toward cancellation of the debt.

e. Repayment shall be made in not more than ten equal semiannual installments, beginning within one month after termination of the agreement.

3.1(4) Family practice residency. A borrower who enters a "family practice residency" at an Iowa hospital shall be granted a maximum of two years' exemption from fulfillment of his agreement to enter private general practice in Iowa, but he shall not receive loan cancellation benefits for these two years.

3.1(5) Payment of tuition under loan plan. Payment shall be prorated by semester or quarter and made directly to the institution after certification that the student is in attendance and in good academic standing.

CHAPTER 4

IOWA TUITION GRANT PROGRAM

4.1(261) Tuition grants, based upon financial need, to full-time resident students attending accredited private institutions of higher education in Iowa.

4.1(1) Financial need. The need of tuition grant applicants for financial aid shall be evaluated annually on the basis of a confidential financial statement filed on forms designated by the commission.

4.1(2) Tuition and mandatory fees. Tuition and mandatory fees shall be defined as those college costs paid annually by all students enrolled on a full-time basis. These costs shall be reported annually to the commission.

4.1(3) Iowa residency. The criteria used by the state board of regents to determine residency are hereby adopted for this program, with the exception that the independent applicant must be domiciled, or if he is dependent, his parents must be domiciled, in the state at the time he applies for the grant.

4.1(4) Disclaimer of dependency. An applicant under twenty-six years of age who claims financial independence from his parents shall be required to file with the commission

an affidavit (disclaimer of dependency) signed by this parent or guardian, stating that the applicant has received no parental support of any kind for the past twelve months, was not claimed as a dependent on the tax return for the past year, and will not be so claimed for the current year.

4.1(5) Priority for grants. Applicants are ranked in order of the estimated amount which their parents reasonably can be expected to contribute toward college expenses and awards are granted from lowest to highest parental contribution, insofar as funds permit.

[Filed January 28, 1971]

HIGHWAY COMMISSION

Editor's Note: The highway commission makes rules relating to the following subjects: Manual of Uniform Traffic Control Devices Arterial Highway Stops (Urban Primary Road Extensions)

Arterial Highway Stops (Rural Primary Roads)

Special School Stops

Special Speed Zones

Persons desiring information in regard thereto may address the Iowa State Highway Commission, Ames, Iowa.

CHAPTER 1

PRIMARY ROAD ACCESS CONTROL

1.1(306A) Statement of policy. The Iowa state highway commission recognizes that there is no fixed, final, nor positive set of rules which will ultimately and irrevocably cover, nor standards so universal as to lead to an inevitable conclusion in every situation which may arise with regard to access to primary roads, and that in connection with each such application said Iowa state highway commission must and shall consider the following:

1. Safety to the traveling public.

2. Protection of the rights of property owners, and in particular the rights of abutting property owners.

3. The rights and convenience of the traveling public and of property owners to have access to homes and business facilities.

4. The impact upon the economy of the state.

5. The perpetuation of the carrying capacity of the highway.

1.1(1) The Iowa state highway commission shall at all times recognize that no property owner shall be deprived of the right to reasonable, free and convenient access to his property without just compensation therefor.

1.1(2) The Iowa state highway commission shall at all times reserve the right to make exceptions to any and all rules where the exercise of sound and reasonable judgment indicates that the literal enforcement of any such rules would effect an undue hardship on any interested party, and the commission shall in the enforcement thereof use extraordinary care to see that no undue hardship or injustice results to any affected party, the community or state.

1.2(306A) Definitions. The following terms when used in the rules in this part have the following meanings:

1.2(1) Commission. The Iowa state highway commission as constituted under the laws of the state of Iowa.

1.2(2) Acquisition. To receive title by gift, purchase or condemnation.

1.2(3) Fully controlled access highway. A highway or street especially designed for through traffic and over, from or to which owners or occupants of abutting land or others shall have no right or easement of access by the reason of the fact that their property abuts upon such highway. Access to a fully controlled access highway shall be via interchanges at designated public roads.

1.2(4) Expressway controlled access highway. A highway or street especially designed for through traffic and over, from or to which owners or occupants of abutting land or others shall have no right or easement of access by the reason of the fact that their property abuts upon such highway. Access to an expressway controlled access highway shall be via interchanges and at designated public road intersections at grade.

1.2(5) Planned controlled access highway. A highway planned or designated by the commission to give preference to through traffic, but, in addition to selected public road intersections at grade, access to the highway at approved points will also be allowed.

1.2(6) Access. A means of ingress or egress to a property.

1.2(7) Frontage. The length along the highway right of way line of a single property tract. Corner property at a highway intersection has a separate frontage along each highway.

1.2(8) Frontage road. A local street or road or equivalent thereof, auxiliary to a primary road or primary road extension, for service to abutting property and adjacent areas. Such facility shall connect to a primary road, primary road extension or other system of public roads or streets.

1.2(9) Entrance. To provide access to or from abutting property and further identified by its normal peak hour potential traffic during an average day as follows:

a. Type "A" entrance. Up to four 12' traffic lanes with median of approved design. An access that develops over 150 vehicles per hour. Possible examples: Sporadic, heavy concentration of vehicles such as drive-in thea-

ters, race tracks, large industrial plants or continuous heavy traffic such as shopping centers, subdivisions, amusement parks.

b. Type "B" entrance. 30' to 45' width. An access that develops twenty vehicles and not more than 150 vehicles per hour. Possible examples: Service stations, small businesses, drive-in food stands and banks, light industrial plants, small drive-in theaters, cemeteries, airports, golf parks, etc.

c. Type "C" entrance. Single 18'-24' width joint 24'-30' width. An access that develops up to twenty vehicles per hour. Possible examples: Field, farm or residential (not more than three dwellings) entrances and any other entrance whose ability to generate traffic is less than twenty vehicles per hour.

1.2(10) Sight distance. The distance of clear vision along the highway in each direction from any given point of access where vehicle must stop before entering the highway. Vertical and horizontal sight distance is measured from a point 3.75' above the entrance surface and to a point 4.5' above the road.

On a four-lane divided highway when an entrance is proposed at a location not to be served by a median crossover, sight distance will be required on a two-lane basis against the flow of traffic only.

1.2(11) Highway classification.

a. Class I — Interstate system or other fully controlled access highway.

b. Class II — Expressway system, a four-lane divided highway with interchanges or separation at major intersections and grade crossings at designated minor public road intersections. Expressway controlled access highway.

c. Class III — Planned controlled access highways on which through traffic is given primary consideration.

d. Class IV — Planned controlled-access highways on which through traffic and land service traffic are given equal consideration.

1.2(12) Built-up area. An area which meets the following general criteria for the side of the primary road or primary road extension:

a. The lots or area abutting are presently developed with insufficient setback for a frontage road and the development in depth precludes the establishment of a frontage road to the rear of the lots or area.

b. Where a "built-up area" exists only on one side of the highway, the other side of the highway will also be considered as "built-up area" for the purpose of determining access requirements.

c. In the event that a frontage road or service road is developed, planned or can be developed through the area, the area shall not be considered a "built-up area."

1.2(13) Fringe (suburban) area. An area which meets the following general criteria for the side of the primary road or primary road extension.

a. The lots, parcels or area abutting, that include intermittent or unrelated development which will permit consideration of a frontage road in front of, or in the rear of the development.

b. For agricultural land inside corporate limits see "Rural area," 1.2(14).

1.2(14) Rural area. An area which meets the following general criteria for the side of the primary road.

All area not clearly coming within the criteria set forth for "built-up" or "fringe" areas and shall include agricultural land within the corporate limits of a city or town.

1.3(306A) General regulations and requirements for establishment of entrances.

1.3(1) The purpose of the rules for the establishment or location of highways, streets and private entrances is to provide access standards. In all instances before existing highway, street or entrance may be modified in any manner, or a new or additional highway, street or entrance constructed to a primary highway, an application for permit to construct or change the entrance should be submitted to the resident maintenance engineer and approved by the commission district engineers.

When road is under construction all applications should be submitted to the resident construction engineer who shall notify the right of way department immediately in regard to such access requests.

1.3(2) Entrance permit. (*Locations where access rights have not been acquired.*) The application to construct a new entrance or modify an existing entrance shall be initiated through the resident maintenance engineer in charge of the county in which the entrance is located. The application (Form 559) must be accompanied with a plat of the proposed development. Where applicable, evidence of tentative approval of appropriate city or county officials (in instances of county zoning) must accompany the application.

a. Written application referred to in 1.3(2) filed on appropriate commission forms, shall be submitted not less than thirty days prior to need of authorization.

b. Entrance permit applications shall be signed by the owner or owners of record. Dependent upon ownership of the property and other estates therein, other signatures may be required.

c. If an application for an entrance permit is not approved by the district engineer as provided in 1.3(1), the application may be re-submitted to the commission at Ames, Iowa. The commission shall act on said application no later than sixty days from the date of the receipt thereof. The applicant will be notified of date and time that his application will be considered.

1.4(306A) General regulations on control of access.

1.4(1) Planned control. (*Access not acquired.*) Where access control is established or

designated over an existing public highway open and used for travel, intersecting roads or streets existing on the date said control is established and which are necessary for free and convenient access and which the commission deems are reasonably located and not likely to create undue hazard are hereby authorized and approved.

1.4(2) Additional streets or highways may be opened into or connected with the planned controlled-access highway upon written approval by the commission.

1.4(3) *Frontage roads.* When and where a frontage road is established and opened to public travel, access from the abutting property shall be to the frontage road.

a. The said access to frontage roads constructed and maintained by the commission shall be unlimited in number. The geometrics of the entrances shall be as provided for Class IV highways as described in 1.6(306A).

b. The said access to frontage roads maintained by other governmental agencies shall conform to those agencies' requirements.

1.5(306A) **Access to Class III highways rural or fringe area where access rights have not been acquired.**

1.5(1) *Type "A" and "B" entrances. Sight distance.* Sight distance shall not be less than the posted daytime speed requirements as stated below.

Posted Daytime Speed Limit	Required Sight Distance	Minimum Stopping Sight Distance
70 m.p.h.	950 feet	600 feet
60 m.p.h.	750 feet	475 feet
50 m.p.h.	550 feet	350 feet
40 m.p.h.	450 feet	275 feet
30 m.p.h.		200 feet

a. *Four-lane Class III highways.* Applicant shall locate an entrance in compliance with the required sight distance requirement.

b. *Two- and three-lane Class III highways.* If the required sight distance is not available on the applicant's highway frontage, the district engineer may approve an application for establishing access for a location at the maximum sight distance available on the applicant's frontage, but in no case less than the minimum stopping sight distance.

1.5(2) *Intersections.* Necessary access located 500 feet or more from the intersection of two primary roads or 300 feet or more from the intersection of a primary road and secondary road may be granted by the district engineer. Access may be granted by the district engineer within the widened portion of a channeled intersection in the event the median is over 750 feet long. Access may be authorized by the district engineer 500 feet or more from the center of an intersection and not closer than 250 feet to the end of the median, provided another access is constructed beyond the widened portion of the intersection and the access points are connected with a frontage road.

a. Access within the above limits may be allowed by the commission or the commission may elect to acquire the access rights.

b. Access may be directly opposite a primary road or secondary road in instances of a "T" intersection.

c. Access will not be permitted onto a secondary road within the primary road right of way or area acquired for "daylighting" the intersection.

1.5(3) *Property lines.* The center line of the entrance at the edge of slab shall be no closer than fifty feet to the property line extended. (The property line extension from the right of way line to center line shall be at right angles to the center line of the highway.) The return of the drive shall not extend beyond the property line.

An entrance to serve two properties may be established, centered on the property line by mutual agreement of the property owners.

1.5(4) *Number and arrangement of entrances.* In general, commercial or industrial developments (other than service stations) will be granted one access point to the primary road. Service stations with adequate frontage will be granted two points of access to the primary road with a minimum distance of thirty feet between entrance toe of slopes along center line of ditch.

Developments with adequate frontage may be authorized two access points at not less than 660 feet intervals provided the minimum distance to the property line can be obtained. [See 1.5(3).]

1.5(5) *Width of entrance.*

a. *Type "A".* Each case will require special study. [For special commercial see 1.8(306A).]

b. *Type "B".* Thirty feet maximum for one-way use on divided highway may be increased to forty-five feet to serve two properties forty-five feet maximum for two-way use, in all cases.

1.5(6) *Entrance angle.* In general, entrance angle will be as near 90° to center line of the highway as site conditions will permit.

a. Entrances established for two-way operation for service stations or developments where two access points are authorized shall be 60° to 90° to center line.

b. In those instances, on a divided highway, where two access points are authorized for one-way operation, the "ingress" may be 45° to 60° to center line and the "egress" 60° to 90° to center line.

1.5(7) *Return radii.*

a. *Type "A".* Each case will require special study.

b. *Type "B".* For entrance angle of 90° to center line return radii at junction of entrance and pavement shall not exceed forty-five feet. For entrance angle of 60° to center line, return radii of obtuse angle shall not exceed sixty feet and return radii of acute angle shall not exceed twenty feet.

1.5(8) Slope and cross section of entrance.

The finished surface elevation of the entrance over the pipe, or place where pipe would normally be, shall be not less than four inches lower than shoulder elevation at the center line of the entrance to prevent water draining onto the pavement or traveled way.

The side slopes on the entrance shall not be steeper than 2:1.

1.5(9) Type "C" entrances. Sight distance. Sight distance shall not be less than the posted daytime speed requirements as stated below.

Posted Daytime Speed Limit	Required Sight Distance	Minimum Stopping Sight Distance
70 m.p.h.	950 feet	600 feet
60 m.p.h.	750 feet	475 feet
50 m.p.h.	550 feet	350 feet
40 m.p.h.	450 feet	275 feet
30 m.p.h.		200 feet

a. Four-lane Class III highways. Applicant shall locate an entrance in compliance with the required sight distance requirement.

b. Two- or three-lane Class III highways. If the required sight distance is not available on the applicant's highway frontage, the district engineer may approve an application for establishing access for a location at the maximum sight distance available on the applicant's frontage, but in no case less than the minimum stopping sight distance.

1.5(10) Intersection. Necessary access located 500 feet or more from the intersection of two primary roads or 300 feet or more from the intersection of a primary road and secondary road may be granted by the district engineer.

a. Access may be granted by the district engineer within the widened portion of a channelized intersection in the event the median is over 750 feet long. Access may be authorized by the district engineer 500 feet or more from the center of an intersection and not closer than 250 feet to the end of the median, provided another access is constructed beyond the widened portion of the intersection and the access points are connected with a frontage road.

b. Access within the above limits may be allowed by the commission or the commission may elect to acquire the access rights.

c. Access may be directly opposite a primary road or secondary road in instances of a "T" intersection.

d. Access will not be permitted onto a secondary road within the primary road right of way or area acquired for "daylighting" the intersection.

1.5(11) Property lines. Center line of entrance at edge of slab to be no closer than thirty-five feet to property line extended. (The property line extension from the right of way line to center line shall be at right angles to the center line of the highway.)

An entrance to serve two properties may be established, centered on the property line by mutual agreement of the property owners.

1.5(12) Number and arrangement of entrances. In general, noncommercial developments will be granted one access point to the primary road.

1.5(13) Width of entrance. An entrance shall have a top width of not less than eighteen feet nor more than twenty-four feet measured parallel to the edge of the slab at culvert line.

An entrance to serve two properties shall have a top width of not less than twenty-four feet nor greater than thirty feet measured as above.

1.5(14) Entrance angle. The center line of the entrance shall be as near 90° as site conditions will permit. Normally the center line of that part of the entrance lying on the right of way shall be at right angles to the pavement for a minimum distance of thirty feet from the near edge of the pavement.

1.5(15) Return radii. An entrance of this type shall be flared with radii no more than fifteen feet. Radii shall be measured from the edge of slab.

1.5(16) Slope and cross section of entrance. The finished surface elevation of the driveway over the pipe, or place where pipe would normally be, shall be not less than four inches lower than shoulder elevation at the center line of the entrance to prevent water draining onto the pavement or traveled way.

The side slopes on the entrance shall not be steeper than 2:1.

1.6(306A) Access to Class IV highways rural or fringe area where access rights have not been acquired.

16.(1) Type "A" and "B" entrances. Sight distance. Sight distance shall not be less than the posted daytime speed requirements as stated below.

Posted Daytime Speed Limit	Required Sight Distance	Minimum Stopping Sight Distance
70 m.p.h.	950 feet	600 feet
60 m.p.h.	750 feet	475 feet
50 m.p.h.	550 feet	350 feet
40 m.p.h.	450 feet	275 feet
30 m.p.h.		200 feet

a. Applicant shall locate an entrance in compliance with the required sight distance requirement whenever possible on his property fronting a highway.

b. If the required sight distance is not available on the applicant's highway frontage, the district engineer may approve an application for establishing access for a location at the maximum sight distance available on the applicant's frontage, but in no case less than the minimum stopping sight distance.

1.6(2) Intersections. Necessary access located 300 feet or more from the intersection of two primary roads or 150 feet or more from the intersection of a Class IV highway and a secondary road may be granted except within a "daylighted" area by the district engineer.

a. Access may be granted by the district engineer within the widened portion of a channelized intersection in the event the median is over 750 feet long. Access may be authorized by the district engineer 500 feet or more from the center of an intersection and not closer than 250 feet to the end of the median, provided another access is constructed beyond the widened portion of the intersection and the access points are connected with a frontage road.

b. Access within the above limits may be allowed by the commission, or the commission may elect to acquire the access rights.

c. Access may be directly opposite a primary road or secondary road in instances of a "T" intersection.

d. Access will not be permitted onto a secondary road within the primary road right of way or area acquired for "daylighting" the intersection.

1.6(3) *Property lines.* The center line of the entrance at the edge of slab shall be no closer than forty feet to the property line extended. (The property line extension from the right of way line to the center line shall be at right angles to the center line of the highway.) The return on the drive shall not extend beyond the property line. An entrance to serve two properties abutting the primary road may be established centered on the property line, by mutual agreement of the property owners.

1.6(4) *Number and arrangement of entrances.* Commercial or industrial developments will be granted access where needed to the primary road, provided safety and construction standards are satisfactory with a minimum distance of thirty feet between entrance toe of slopes along center line of ditch.

1.6(5) *Width of entrance.*

a. *Type "A".* Each case will require special study. [For special commercial see 1.8 (306A).]

b. *Type "B".* Forty-five feet maximum for two-way use, in all cases.

1.6(6) *Entrance angle.* In general, entrance angle will be as near 90° to center line of the highway as site conditions will permit.

Entrances for service stations or developments where two access points are authorized shall be 60° to 90° to center line.

1.6(7) *Return radii.*

a. *Type "A".* Each case will require a special study.

b. *Type "B".* For entrance angle of 90° to center line return radii at junction of entrance and pavement shall not exceed forty-five feet. For entrance angle of 60° to center line return radii of obtuse angle shall not exceed sixty feet and return radii of acute angle shall not exceed twenty feet.

1.6(8) *Slope and cross section of entrances.* The finished surface elevation of the driveway over the pipe, or place where pipe would normally be, shall not be less than four inches lower than shoulder elevation at the

center line of the entrance to prevent water draining onto the pavement or traveled way.

The side slopes on the entrance shall not be steeper than 2:1.

1.6(9) *Type "C" entrances. Sight distance.* Sight distance shall not be less than the posted daytime speed requirements as stated below.

Posted Daytime Speed Limit	Required Sight Distance	Minimum Stopping Sight Distance
70 m.p.h.	950 feet	600 feet
60 m.p.h.	750 feet	475 feet
50 m.p.h.	550 feet	350 feet
40 m.p.h.	450 feet	275 feet
30 m.p.h.		200 feet

a. Applicant shall locate an entrance in compliance with the required sight distance requirement whenever possible on his property fronting a highway.

b. If the required sight distance is not available on the applicant's highway frontage, the district engineer may approve an application for establishing access for a location at the maximum sight distance available on the applicant's frontage, but in no case less than the minimum stopping sight distance.

1.6(10) *Intersections.* Necessary access located 300 feet or more from the intersection of two primary roads or 150 feet or more from the intersection of a Class IV highway and a secondary road may be granted except within a "daylighted" area by the district engineer.

a. Access may be granted by the district engineer within the widened portion of a channelized intersection in the event the median is over 750 feet long. Access may be authorized by the district engineer 500 feet or more from the center of an intersection and not closer than 250 feet to the end of the median, provided another access is constructed beyond the widened portion of the intersection and the access points are connected with a frontage road.

b. Access within the above limits may be allowed by the commission, or the commission may elect to acquire the access rights.

c. Access may be directly opposite a primary road or secondary road in instances of a "T" intersection.

d. Access will not be permitted onto a secondary road within the primary road right of way or area acquired for "daylighting" the intersection.

1.6(11) *Property lines.* Center line of entrance at edge of slab shall be no closer than thirty feet to property line extended. (The property line extension from the right of way line to the center line shall be at right angles to the center line of the highway.)

An entrance to serve two properties may be established centered on the property line, by mutual agreement of the property owners.

1.6(12) *Number and arrangements of entrances.* Noncommercial developments will be granted access where needed to the primary

road, provided safety and construction standards are satisfactory with a minimum distance of thirty feet between entrance toe of slopes along center line of ditch.

1.6(13) Width of entrance. An entrance shall have a top width of not less than eighteen feet nor more than twenty-four feet measured parallel to the edge of the slab at culvert line.

An entrance to serve two properties shall have a top width of not less than twenty-four feet nor greater than thirty feet measured as above.

1.6(14) Entrance angle. The center line of the entrance shall be as near 90° as site conditions will permit. Normally the center line of that part of the entrance lying on the right of way shall be at right angles to the pavement for a minimum distance of thirty feet from the near edge of the pavement.

1.6(15) Return radii. An entrance of this type shall be flared with radii no more than fifteen feet. Radii shall be measured from edge of slab.

1.6(16) Slope and cross section of entrance. The finished surface elevation of the driveway over the pipe, or place where pipe would normally be, shall be not less than four inches lower than shoulder elevation at the center line of the entrance to prevent water draining onto the pavement or traveled way.

The side slopes on the entrance shall not be steeper than 2:1.

1.7(306A) Access to Class III and IV highways in built-up area where access rights have not been acquired.

1.7(1) Noncommercial, commercial or industrial developments. Applicant is urged to contact the resident maintenance engineer for clarification of the following requirements.

1.7(2) Intersections. At street intersections on a primary road extension in built-up area, the minimum length of curb around the radius of a street return shall be determined as follows: The beginning of the curb drop for the entrance shall be no closer than five feet from the curb tangent point provided that: A curb drop shall not extend beyond the property line extended, or extend into a crosswalk.

a. On the intersecting street the curb drop for the entrance shall be no closer than the property line extended, or extend into the crosswalk. [See 1.7(9).]

b. When a primary road extension is improved, existing entrances shall be modified to conform to entrance requirements as stated above. Where these requirements would necessitate alteration of existing facilities for practical operation or where purchase of access rights are not economically feasible, the length of curb may be reduced to not less than the tangent point on the primary intersection, and to the property line on the intersecting street.

c. If the intersection does not have an existing or planned curb and gutter to define the radius, the following right of way and

traveled way assumptions shall be applied to the above requirements for determining the location of the entrance: Minimum width of traveled way of the primary road extension—forty-nine feet back to back of curbs. (If right of way width is less than sixty-six feet—traveled way shall be assumed as seventy-five percent of platted width of primary road extension.) Minimum width of traveled way of the intersecting local road—thirty-one feet back to back of curbs.

d. Minimum radius of curb return where interior angle of line of curb is between 30° and 120°—twenty-five feet.

e. If interior angle of line of curb is greater than 120°, minimum radius to be fifty feet.

f. If interior angle of line of curb is less than 30°, minimum radius of return to be twenty feet.

1.7(3) Channelized intersection or divided highways. When there is a median in the primary road extension or the intersecting street, or both, the curb drop for the entrance shall be determined as stated above except that at the beginning or end of the median, or at a median break the nearest edge of the curb drop for an entrance shall not be closer than twenty feet from the end of the median measured at right angles to the median. This does not apply to entrances centered on the median break.

1.7(4) Property lines. Curb drop for entrances shall not extend beyond the property line extended on an interior lot line. (The property line extension from the right of way line to the center line shall be at right angles to the center line of the highway.) When rural type road section exists 1.6(3) or 1.6(11) shall apply.

An entrance to serve two properties may be established centered on the property line by mutual agreement of the property owners. [See 1.7(9).]

1.7(5) Number and arrangement of entrances to Class III highways. In general residential and commercial developments (other than service stations) will be granted one access point to the primary road or primary road extension. Service stations with adequate frontage will be granted two points of access to the primary road or primary road extension. Additional access will be considered for commercial development with 150 feet frontage or more on a primary road or primary road extension and such development does not abut or have access to another street.

In an instance where more than one access is permitted to the primary road or primary road extension from an abutting property, there shall be a minimum of fifteen feet between the near edges of the curb drops for driveways.

1.7(6) Number and arrangement of entrances for Class IV highways. Residential and commercial developments will be granted access where needed to the primary road or

primary road extension, provided safety and construction standards are satisfactory.

1.7(7) Width of entrances.

a. *Type "A"*. Each case will require special study.

b. *Type "B"*. Thirty feet maximum for one-way use on divided highway. (May be increased to forty-five feet to serve two properties.) Forty-five feet maximum for two-way use in all cases. [See 7.1(9).]

c. *Type "C"*. Twenty-four feet maximum. (May be increased to thirty-five feet to serve two properties.)

d. The total length of curb openings on a primary road or primary road extension for access to a property abutting the road or extension shall not exceed sixty percent of the property frontage.

1.7(8) Entrance angle. In general, entrance angle will be as near 90° to center line of highway as site conditions will permit.

a. Entrances established for two-way operations for service stations or developments where two access points are authorized shall be 60° to 90° to center line.

b. In those instances on a divided highway where two access points are authorized for one-way operation, the "ingress" may be 45° to 60° to center line and the "egress" shall be 60° to 90° to center line.

1.7(9) Primary road extension. On primary road extensions the location and geometrics of access must meet local requirements within the limitation of 1.7(306A) and access permits must have prior approval by authorized city officials.

1.8(306A) Access for special commercial developments on Class III and IV highways where access rights have not been acquired.

1.8(1) Facilities which serve type of enterprise which generates heavy concentration of vehicles such as drive-in theaters, race tracks, baseball parks, amusement centers, shopping centers, industrial parks, etc., will require special study to be co-ordinated with commission planning and design sections to determine what facilities are required.

Time requirements set forth in 1.3(2) may be extended if necessary.

1.9(306A) Classification of primary highways for access control.

1.9(1) Classification. Each of the primary highways of the state of Iowa is classified in accordance with 1.2(11) of these rules. This classification for each highway is available at the office of the Iowa State Highway Commission, Ames, Iowa.

[Filed May 18, 1966]

CHAPTER 2
SPECIAL PERMITS
OPERATION AND MOVEMENT OF
VEHICLES AND LOADS OF EXCESS
SIZE AND WEIGHT

2.1(321E) General stipulations. All permits issued by permit issuing authorities will be

subject to the following general stipulations.

2.1(1) Permit issuing authorities will in their discretion and upon application and with good cause being shown therefore issue permits for the movement of vehicles with indivisible loads carried thereon which exceed the maximum dimensions and weights specified in sections 321.452 through 321.466 of the Code, but not to exceed the limitations of chapter 321E of the Code.

2.1(2) By whom issued. All permits for the movement of oversize vehicles or vehicles and loads on the primary road system of Iowa will be issued only through the traffic weight operations department of the Iowa state highway commission, Ames, Iowa, except those authorized to be issued by the resident maintenance engineers of the Iowa state highway commission. All permits for the movements on other systems of highways and streets will be issued by the authority responsible for the maintenance of such systems of highways or streets.

2.1(3) Permits so issued may be single-trip permits or annual permits and the Iowa state highway commission will issue single-trip permits on primary road extensions in cities and towns in conjunction with movement on the rural primary road system.

2.1(4) The state of Iowa and the Iowa state highway commission and any other permit issuing authority assume no responsibility for the property of the applicant.

2.1(5) During the moving of a vehicle or object under permit, the applicant shall comply with the terms and conditions of the permit and take all reasonable precautions to protect and safeguard the lives and property of the traveling public and adjacent property owners, and shall hold permit issuing authorities harmless of any damages that may be sustained by the traveling public or adjacent property owners or resulting to the highway systems of the state on account of movements made hereunder.

2.1(6) Nothing in the permit shall be construed as waiving any load limitations which have been or which might be established on any bridge or any road which is posted with embargo signs.

2.1(7) The permit and any supplements or additions thereto shall be void in case the weights or dimensions of the vehicle and load as operated exceed the weights or dimensions as provided in the permit and supplements or additions thereto. Provisions of the law as to maximum weight and dimensions, chapter 321E of the Code shall then apply.

2.1(8) No vehicle or combination of vehicles of illegal dimension with or without load shall be moved on the highways without permit except as provided in section 321.453 of the Code.

2.1(9) Permits are valid only for the transporting of a single article which exceeds statutory size or weight limits or both, and

which cannot reasonably be divided or reduced to statutory size and weight limits, except in the transportation of property consisting of more than one article exceeding the statutory size limits when the statutory weight limitations are not exceeded and the additional articles transported do not exceed statutory size in any way in which such limits would not be exceeded by the single article.

2.1(10) Permits issued shall be in writing and shall be carried in the cabs of the vehicles for which the permits have been issued and shall be available for inspection at all times. The vehicle for which the permits have been issued shall be open to inspection by any peace officer or to any authorized agent of any permit granting authority.

2.1(11) Movements by permit shall be permitted only during daylight hours unless it is established by the issuing authority that the movement can be better accomplished at another period of time because of traffic-volume conditions. Except as provided in section 321.457 of the Code, no movement of over-dimension vehicles shall be permitted on Saturday, Sunday, holidays or days preceding or following holidays or special events when abnormally high traffic volumes can be expected. Those legal holidays are: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day and Veterans' Day.

2.1(12) The towing unit for mobile homes or other towed loads, the weight of which towed load exceeds 4500 pounds, shall be a one and one-half ton or larger truck or truck tractor having dual wheels. The towing unit for towed loads exceeding ten feet in width shall have at least a 120-inch wheel base or shall have an empty gross weight of 6000 pounds or more. Hitching requirements shall be consistent with those of the Iowa department of public safety.

2.1(13) Fees and costs required under these rules shall normally be paid in the form of certified check, cashier's check, traveler's check or bank draft. Cash and personal checks may be accepted at the discretion of the issuing authority.

2.1(14) *Financial responsibility.* Proof of public liability insurance in the amounts of \$100,000 bodily injury each person, \$200,000 bodily injury each occurrence and \$20,000 property damage will be required prior to the issuance of any permit. Such proof to be made by the submission of a certificate of insurance to the permit issuing authority.

2.1(15) *Movements on the interstate system (as defined in section 306.2(7) of the Code).*

a. Subject to the provisions of "b", "c" and "d" below, annual or single-trip permits will be issued for movements on the interstate system provided the interstate system is free from maintenance and construction work or other hazardous conditions on the specific permit route and abnormally high traffic volumes

due to special events are not present on the specific permit route and where:

(1) An alternate primary route with a roadway width of 24 feet is not available, or

(2) The average daily traffic exceeds 3000 vehicles on the alternate primary route, or

(3) The travel distance is equal for both systems or is greater for the alternate primary route.

b. Annual permits may be issued for movements on the interstate system not to exceed 25 miles except that the movement of road construction machinery, equipment or material and agricultural machinery, equipment and materials may be for a distance exceeding 25 miles if such machinery, equipment and materials are to be used within the state of Iowa or are manufactured or assembled in the state of Iowa provided:

(1) A minimum speed of 40 miles per hour can be maintained.

(2) The vehicle with load does not exceed 11 feet 9 inches in width, 13 feet 6 inches in height, 70 feet 0 inches in over-all length and total gross weight of 73,280 pounds [18,000 pounds per axle according to the schedule in 2.1(16)].

c. Single-trip permits may be issued for movement, or a portion of a move, on the interstate system where in the opinion of the director of traffic-weight operations, the more proposed on the interstate system will be to the best interests of the safety of the traveling public provided:

(1) A minimum speed of 40 miles per hour can be maintained.

(2) The vehicle with load does not exceed 11 feet 9 inches in width, height limited to underpasses, power lines and other established height restrictions, 70 feet 0 inches in over-all length and total gross weight of 73,280 pounds [18,000 pounds per axle according to the schedule in 2.1(16)].

(3) The vehicle with load does not exceed 80 feet 0 inches in over-all length and the width does not exceed 8 feet 0 inches, the height does not exceed 13 feet 6 inches and the total gross weight does not exceed 73,280 pounds [18,000 pounds per axle according to the schedule in 2.1(16)] in special or emergency situations and only at the discretion of the permit issuing authority. In such cases the provisions of 2.1(15)"a"(1), (2) and (3) may be waived.

d. Single-trip or annual permits may be issued for mobile homes to make a portion of a move on the interstate system:

(1) At either the point of entry or exit from this state and then only for such distance necessary to make connection with the nearest primary highway route, or

(2) To bypass urban areas over specified routes provided:

The vehicle with load does not exceed 11 feet 9 inches in width, 13 feet 6 inches in height, 70 feet 0 inches in over-all length, and

total gross weight of 73,280 pounds [18,000 pounds per axle according to the schedule in 2.1(16)].

e. Permits for movement on the interstate system shall be issued by the Traffic

Weight Operations Office, Ames, Iowa, or by the Resident Maintenance Engineer's Office provided the proposed interstate system movement is approved by a telephone call to the Traffic Weight Operations office, Ames, Iowa.

2.1(16) Schedule of maximum axle weights and maximum gross weights including tolerance.

Wheel Base Feet	Max. Ldg. Pounds Weight	Wheel Base Feet	Max. Ldg. Pounds Weight	Wheel Base Feet	Max. Ldg. Pounds Weight	Wheel Base Feet	Max. Ldg. Pounds Weight
13	48,000	22	58,000	31	76,000	40	87,000
14	48,000	23	60,000	32	78,000	41	88,000
15	48,000	24	62,000	33	80,000	42	89,000
16	48,000	25	64,000	34	81,000	43	90,000
17	48,000	26	66,000	35	82,000	44	90,000
18	50,000	27	68,000	36	83,000	45	90,000
19	52,000	28	70,000	37	84,000	46	90,000
20	54,000	29	72,000	38	85,000	47	90,000
21	56,000	30	74,000	39	86,000		Maximum

No single axle shall exceed 18,540 pounds.

No tandem axle shall exceed 34,000 pounds.

No triple axle shall exceed 42,000 pounds for gross weights of 75,000 pounds or less.

No triple axle shall exceed 48,000 pounds for gross weights exceeding 75,000 pounds.

2.1(17) Applications for permits and escort authorization for movements on the primary highway system shall be made and permits and authorizations shall be issued on highway commission Forms 563, 564, 566, 567 and 568 which are set out in 2.6(321E) of the rules. Any applications to local authorities for permit or escort authorization made upon Forms 563, 564 and 566 through 568 shall be sufficient and accepted as properly made by local authorities.

Subject to the preceding, permit issuing authorities may adopt, amend or modify such forms provided that amended or modified forms adequately identify the applicant, the hauling vehicle and load, the manner and extent that the vehicle with load exceeds legal dimensions and weights specified in sections 321.452 through 321.466 of the Code, route and trip distance where applicable and authorization of issuing authority.

2.2(321E) Movements of loads exceeding twelve feet five inches in width.

2.2(1) Permits for the movement of indivisible loads exceeding 12 feet 5 inches in width shall be restricted to maximum trip distances in accordance with the schedules in 2.2(3), including adjustments for road widths of less than 24 feet and traffic volumes of less than 4000 vehicles per day and adjustments for gravel roads. (For 24-foot, 22-foot, 20-foot, 18-foot paved roadways and gravel surfaces where a=4000 or more vehicles per day, b=3000 or more vehicles per day, c=2000 or more vehi-

cles per day, d=1000 or more vehicles per day, and e=under 1000 vehicles per day.)

2.2(2) A movement of an indivisible load over a highway or highways having sections carrying varying volumes of traffic and having varying surface widths shall be computed for the total distance of the lowest volume of traffic or the greatest highway width which ever produces the greatest distance by the schedule in 2.2(3). No part of the movement based on traffic volume and surface width shall exceed the distance established by the specific traffic volume and surface width for that section.

2.2(3) Computation of maximum trip distance when permits are issued by more than one authority to accomplish a single trip.

a. Permit issuing authorities shall issue permits for that portion of the total trip distance made upon roads within their jurisdiction using the schedule in 2.2(3). No permit issuing authority shall authorize a move for a distance exceeding the maximum trip distance allowable for the portion of the move within its jurisdiction.

b. The maximum trip distance allowable for a movement requiring permits from more than one issuing authority will be the greatest maximum distance allowed for any segment of the permit movement but shall not exceed fifty miles. The maximum distance shall not be extended by the fact that there is more than one issuing authority.

PAVED SURFACE

Actual Load Width	24' roadway (pavement)					22' roadway (pavement)				
	a	b	c	d	e	a	b	c	d	e
13'	50	50	50	50	50	23	41	50	50	50
14'	50	50	50	50	50	15	32	50	50	50
15'	41	50	50	50	50	10	23	41	50	50
16'	32	50	50	50	50	8	15	32	50	50
17'	23	41	50	50	50	7	10	23	41	50
18'	15	32	50	50	50	6 1/4	8	15	32	50
19'	10	23	41	50	50	5 1/2	7	10	23	41
20'	8	15	32	50	50	5	6 1/4	8	15	32
21'	7	10	23	41	50	4 1/2	5 1/2	7	10	23
22'	6 1/4	8	15	32	50	4	5	6 1/4	8	15
23'	5 1/2	7	10	23	41	3 3/4	4 1/2	5 1/2	7	10
24'	5	6 1/4	8	15	32	3 1/2	4	5	6 1/4	8
25'	4 1/2	5 1/2	7	10	23	3 1/4	3 3/4	4 1/2	5 1/2	7
26'	4	5	6 1/4	8	15	3	3 1/2	4	5	6 1/4
27'	3 3/4	4 1/2	5 1/2	7	10	2 3/4	3 1/4	3 3/4	4 1/2	5 1/2
28'	3 1/2	4	5	6 1/4	8	2 1/2	3	3 1/2	4	5
29'	3 1/4	3 3/4	4 1/2	5 1/2	7	2 1/4	2 3/4	3 1/4	3 3/4	4 1/2
30'	3	3 1/2	4	5	6 1/4	2	2 1/2	3	3 1/2	4
31'	2 3/4	3 1/4	3 3/4	4 1/2	5 1/2	1 3/4	2 1/4	2 3/4	3 1/4	3 3/4
32'	2 1/2	3	3 1/2	4	5	1 1/2	2	2 1/2	3	3 1/2
33'	2 1/4	2 3/4	3 1/4	3 3/4	4 1/2	1 1/4	1 3/4	2 1/4	2 3/4	3 1/4
34'	2	2 1/2	3	3 1/2	4	1	1 1/2	2	2 1/2	3
35'	1 3/4	2 1/4	2 3/4	3 1/4	3 3/4	3/4	1 1/4	1 3/4	2 1/4	2 3/4
36'	1 1/2	2	2 1/2	3	3 1/2	1/2	1	1 1/2	2	2 1/2
37'	1 1/4	1 3/4	2 1/4	2 3/4	3 1/4	0	3/4	1 1/4	1 3/4	2 1/4
38'	1	1 1/2	2	2 1/2	3	0	1/2	1	1 1/2	2
39'	3/4	1 1/4	1 3/4	2 1/4	2 3/4	0	0	3/4	1 1/4	1 3/4
40'	1/2	1	1 1/2	2	2 1/2	0	0	1/2	1	1 1/2

PAVED SURFACE

Actual Load Width	20' roadway (pavement)					18' roadway (pavement)				
	a	b	c	d	e	a	b	c	d	e
13'	7	10	23	41	50	4 1/2	5 1/2	7	10	23
14'	6 1/4	8	15	32	50	4	5	6 1/4	8	15
15'	5 1/2	7	10	23	41	3 3/4	4 1/2	5 1/2	7	10
16'	5	6 1/4	8	15	32	3 1/2	4	5	6 1/4	8
17'	4 1/2	5 1/2	7	10	23	3 1/4	3 3/4	4 1/2	5 1/2	7
18'	4	5	6 1/4	8	15	3	3 1/2	4	5	6 1/4
19'	3 3/4	4 1/2	5 1/2	7	10	2 3/4	3 1/4	3 3/4	4 1/2	5 1/2
20'	3 1/2	4	5	6 1/4	8	2 1/2	3	3 1/2	4	5
21'	3 1/4	3 3/4	4 1/2	5 1/2	7	2 1/4	2 3/4	3 1/4	3 3/4	4 1/2
22'	3	3 1/2	4	5	6 1/4	2	2 1/2	3	3 1/2	4
23'	2 3/4	3 1/4	3 3/4	4 1/2	5 1/2	1 3/4	2 1/4	2 3/4	3 1/4	3 3/4
24'	2 1/2	3	3 1/2	4	5	1 1/2	2	2 1/2	3	3 1/2
25'	2 1/4	2 3/4	3 1/4	3 3/4	4 1/2	1 1/4	1 3/4	2 1/4	2 3/4	3 1/4
26'	2	2 1/2	3	3 1/2	4	1	1 1/2	2	2 1/2	3
27'	1 3/4	2 1/4	2 3/4	3 1/4	3 3/4	3/4	1 1/4	1 3/4	2 1/4	2 3/4
28'	1 1/2	2	2 1/2	3	3 1/2	1/2	1	1 1/2	2	2 1/2
29'	1 1/4	1 3/4	2 1/4	2 3/4	3 1/4	0	3/4	1 1/4	1 3/4	2 1/4
30'	1	1 1/2	2	2 1/2	3	0	1/2	1	1 1/2	2
31'	3/4	1 1/4	1 3/4	2 1/4	2 3/4	0	0	3/4	1 1/4	1 3/4
32'	1/2	1	1 1/2	2	2 1/2	0	0	1/2	1	1 1/2
33'	0	3/4	1 1/4	1 3/4	2 1/4	0	0	0	3/4	1 1/4
34'	0	1/2	1	1 1/2	2	0	0	0	1/2	1
35'	0	0	3/4	1 1/4	1 3/4	0	0	0	0	3/4
36'	0	0	1/2	1	1 1/2	0	0	0	0	1/2
37'	0	0	0	3/4	1 1/4	0	0	0	0	0
38'	0	0	0	1/2	1	0	0	0	0	0
39'	0	0	0	0	3/4	0	0	0	0	0
40'	0	0	0	0	1/2	0	0	0	0	0

GRAVEL ROAD ADJUSTMENT

Actual Load Width	30' Traveled Width					28' Traveled Width				
	a	b	c	d	e	a	b	c	d	e
13'	50	50	50	50	50	50	50	50	50	50
14'	50	50	50	50	50	50	50	50	50	50
15'	50	50	50	50	50	50	50	50	50	50
16'	50	50	50	50	50	50	50	50	50	50
17'	50	50	50	50	50	50	50	50	50	50
18'	50	50	50	50	50	50	50	50	50	50
19'	50	50	50	50	50	50	50	50	50	50
20'	50	50	50	50	50	50	50	50	50	50
21'	50	50	50	50	50	50	50	50	50	50
22'	50	50	50	50	50	50	50	50	50	50
23'	50	50	50	50	50	41	50	50	50	50
24'	50	50	50	50	50	32	50	50	50	50
25'	50	50	50	50	50	23	41	50	50	50
26'	50	50	50	50	50	15	32	50	50	50
27'	41	50	50	50	50	10	23	41	50	50
28'	32	50	50	50	50	8	15	32	50	50
29'	23	41	50	50	50	7	10	23	41	50
30'	15	32	50	50	50	6 1/4	8	15	32	50
31'	10	23	41	50	50	5 1/2	7	10	23	41
32'	8	15	32	50	50	5	6 1/4	8	15	32
33'	7	10	23	41	50	4 1/2	5 1/2	7	10	23
34'	6 1/4	8	15	32	50	4	5	6 1/4	8	15
35'	5 1/2	7	10	23	41	3 3/4	4 1/2	5 1/2	7	10
36'	5	6 1/4	8	15	32	3 1/2	4	5	6 1/2	8
37'	4 1/2	5 1/2	7	10	23	3 1/4	3 3/4	4 1/2	5 1/2	7
38'	4	5	6 1/4	8	15	3	3 1/2	4	5	6 1/4
39'	3 3/4	4 1/2	5 1/2	7	10	2 3/4	3 1/4	3 3/4	4 1/2	5 1/2
40'	3 1/2	4	5	6 1/4	8	2 1/2	3	3 1/2	4	5

GRAVEL ROAD ADJUSTMENT

Actual Load Width	26' Traveled Width					24' Traveled Width				
	a	b	c	d	e	a	b	c	d	e
13'	50	50	50	50	50	50	50	50	50	50
14'	50	50	50	50	50	50	50	50	50	50
15'	50	50	50	50	50	41	50	50	50	50
16'	50	50	50	50	50	32	50	50	50	50
17'	50	50	50	50	50	23	41	50	50	50
18'	50	50	50	50	50	15	32	50	50	50
19'	41	50	50	50	50	10	23	41	50	50
20'	32	50	50	50	50	8	15	32	50	50
21'	23	41	50	50	50	7	10	23	41	50
22'	15	32	50	50	50	6 1/4	8	15	32	50
23'	10	23	41	50	50	5 1/2	7	10	23	41
24'	8	15	32	41	50	5	6 1/4	8	15	32
25'	7	10	23	41	50	4 1/2	5 1/2	7	10	23
26'	6 1/4	8	15	32	50	4	5	6 1/4	8	15
27'	5 1/2	7	10	23	41	3 3/4	4 1/2	5 1/2	7	10
28'	5	6 1/4	8	15	32	3 1/2	4	5	6 1/4	8
29'	4 1/2	5 1/2	7	10	23	3 1/4	3 3/4	4 1/2	5 1/2	7
30'	4	5	6 1/4	8	15	3	3 1/2	4	5	6 1/4
31'	3 3/4	4 1/2	5 1/2	7	10	2 3/4	3 1/4	3 3/4	4 1/2	5 1/2
32'	3 1/2	4	5	6 1/4	8	2 1/2	3	3 1/2	4	5
33'	3 1/4	3 3/4	4 1/2	5 1/2	7	2 1/4	2 3/4	3 1/4	3 3/4	4 1/2
34'	3	3 1/2	4	5	6 1/4	2	2 1/2	3	3 1/2	4
35'	2 3/4	3 1/4	3 3/4	4 1/2	5 1/2	1 3/4	2 1/4	2 3/4	3 1/4	3 3/4
36'	2 1/2	3	3 1/2	4	5	1 1/2	2	2 1/2	3	3 1/2
37'	2 1/4	2 3/4	3 1/4	3 3/4	4 1/2	1 1/4	1 3/4	2 1/4	2 3/4	3 1/4
38'	2	2 1/2	3	3 1/2	4	1	1 1/2	2	2 1/2	3
39'	1 3/4	2 1/4	2 3/4	3 1/4	3 3/4	3/4	1 1/4	1 3/4	2 1/4	2 3/4
40'	1 1/2	2	2 1/2	3	3 1/2	1/2	1	1 1/2	2	2 1/2

2.3(321E) Permits—their limitations and stipulations.

2.3(1) Annual permits (issued for a period of one year) for:

a. Vehicles and indivisible loads including mobile homes not to exceed the following dimensions and weights:

(1) Width—12 feet 5 inches including appurtenances.

(2) Length—70 feet 0 inches over-all. Front-end projection may in the discretion of the issuing authority exceed 15 feet.

(3) Height (legal) 13 feet 6 inches.

(4) Weight (legal including all tolerances)—18,540 pounds (single axle), 34,000 pounds (tandem axle), 42,000 pounds (triple axle), and 73,280 pounds (total gross weight). [See schedule in 2.1(16).]

(5) Unlimited distance.

b. Vehicles with indivisible loads not to exceed the following dimensions and weights:

(1) Width—14 feet 0 inches.

(2) Length—80 feet 0 inches over-all. Front-end projection may in the discretion of the issuing authority exceed 15 feet.

(3) Height (legal) 13 feet 6 inches.

(4) Weight (legal including all tolerances)—18,540 pounds (single axle), 34,000 pounds (tandem axle), 42,000 pounds (triple axle), and 73,280 pounds (total gross weight). [See schedule in subrule 2.1(16).]

(5) Restricted to trip distances not to exceed 50 highway and street miles in total aggregate.

c. Vehicles with indivisible loads not to exceed the following dimensions and weights:

(1) Width—(legal) 8 feet 0 inches.

(2) Length 100 feet 0 inches over-all. Front-end projection may in the discretion of the issuing authority exceed 15 feet.

(3) Height—(legal) 13 feet 6 inches.

(4) Weight—(legal including all tolerances)—18,540 pounds (single axle), 34,000 pounds (tandem axle), 42,000 pounds (triple axle), and 73,280 pounds (total gross weight). [See schedule in 2.1(16).]

(5) Restricted to trip distances not to exceed 50 highway and street miles in total aggregate.

d. The movement of truck trailers manufactured or assembled in the state of Iowa shall be limited to the following:

(1) Width—(legal) 8 feet 0 inches.

(2) Length—65 feet over-all. Front-end projection may in the discretion of the issuing authority exceed 15 feet.

(3) Height—13 feet 6 inches.

(4) Weight—(legal including all tolerances)—18,540 pounds (single axle), 34,000 pounds (tandem axle), 42,000 pounds (triple axle), and 73,280 pounds (total gross weight). [See schedule in 2.1(16).]

(5) Not to exceed 45 miles per hour.

(6) Only on roadways of 24 feet in width or more.

(7) Solely for the purpose of delivery from the point of manufacture or assembly to a point outside the state.

e. A fee of ten dollars payable prior to issuance of the permit.

f. Annual permits will be issued only upon receipt of a fully completed application form by mail or when the applicant appears in person.

2.3(2) Single-trip permits (issued for the movement of a single load that exceeds statutory size from point of origin to point of ultimate destination) for:

a. Vehicles with indivisible loads including mobile homes not to exceed the following dimensions and weights:

(1) Width—12 feet 5 inches including appurtenances.

(2) Length—80 feet 0 inches over-all. No mobile home may be moved if the actual mobile home unit exceeds 65 feet in length. Front-end projection may in the discretion of the issuing authority exceed 15 feet.

(3) Height—(legal) 13 feet 6 inches.

(4) Weight—(legal including all tolerances)—18,540 pounds (single axle), 34,000 pounds (tandem axle), 42,000 pounds (triple axle), and 73,280 pounds (total gross weight). [See schedule in 2.1(16).]

(5) Unlimited distance.

b. Vehicles with indivisible loads not to exceed the following dimensions and weights:

(1) Width—12 feet 0 inches.

(2) Length—80 feet 0 inches. Front-end projection may in the discretion of the issuing authority exceed 15 feet.

(3) Height—limited only to limitations of underpasses, bridges, power lines and other established height restrictions.

(4) Weight—(including all tolerances)—18,540 pounds (single axle). Weights for groups of axles, [see subrule 2.1(16)], 75,000 pounds (total gross weight).

(5) Unlimited distance over specified routes.

c. Vehicles with indivisible loads not to exceed the following dimensions and weights:

(1) Width—12 feet 0 inches.

(2) Length—80 feet 0 inches over-all. Front-end projection may in the discretion of the issuing authority exceed 15 feet 0 inches.

(3) Height—limited only to limitations of underpasses, bridges, power lines and other established height restrictions.

(4) Weight—(including all tolerances)—18,540 pounds (single axle). Weights for groups of axles, [see subrule 2.1(16)]—90,000 pounds (total gross weight).

(5) Unlimited distance over specified route.

d. Vehicles with indivisible loads subject to the following dimensions and weights:

(1) Width—exceeding 12 feet 0 inches and up to 40 feet 0 inches over-all width.

(2) Length—not to exceed 120 feet 0 inches over-all. Front-end projection may in the discretion of the issuing authority exceed 15 feet.

(3) Height—limited only to limitations of underpasses, bridges, power lines and other established height restrictions.

(4) Weight—including all tolerances)—18,540 pounds (single axle). Weights for groups of axles, [see subrule 2.1(16)]—90,000 pounds (total gross weight).

(5) Distance limited to the schedule of total trip distances. [See rule 2.2(321E)]—over specified routes, in all cases must be accompanied by an official escort approved by the issuing authority.

e. Vehicles especially designed for the movement of grain bins and vehicles with indivisible loads not to exceed the following dimensions and weights:

(1) Width—(legal) 8 feet 0 inches.

(2) Length—120 feet over-all. Front-end projection may in the discretion of the issuing authority exceed 15 feet 0 inches.

(3) Height—(legal) 13 feet 6 inches.

(4) Weight—(legal including all tolerances)—18,540 pounds (single axle), 34,000 pounds (tandem axle), 42,000 pounds (triple axle), and 73,280 pounds (total gross weight). [See schedule 2.1(16).]

f. Vehicles with indivisible loads exceeding the total gross weight of 90,000 pounds may be moved in special or emergency situations.

Weight—gross weight on any axle shall not exceed 18,540 pounds including tolerances.

g. Special or emergency situations (definitions).

(1) Shall be defined as those where it is necessary to co-operate with national defense officials.

(2) Or where it is necessary to co-operate with cities, towns, counties or other state agencies in response to national or other disasters.

(3) Or where it is necessary to co-operate with public or private utilities in order to maintain their public services.

(4) Or uncommon and extraordinary circumstances where the movement is essential to the existence of an Iowa business and the move may be accomplished without causing undue hazards to the safety of the traveling public or undue damage to private or public property.

(5) The issuing authority at its discretion may require an additional escort either official or civilian approved.

h. Fees and costs.

(1) A fee of five dollars will be charged for each single-trip permit payable prior to the issuance of the permit.

(2) Permit issuing authorities may charge any permit applicant a fair and reasonable cost for the removal and replacement of natural obstructions or official signs and signals.

(3) Permit issuing authorities may charge any permit applicant a fair and reasonable cost for measures necessary to avoid dam-

age to public property including structures and bridges payable prior to the issuance of the permit.

(4) Permit issuing authorities may require the applicant to file a bond, certified check or other assurance in an amount sufficient to cover the reasonably anticipated cost of damage or loss to private property, either real or personal, likely to be caused by or arising out of the movement of the vehicle and load. The amount of the above may be reduced either in whole or in part by the applicant's submission to the permit issuing authority of written permission from affected third parties stating in substance that the third party either owns or has the right of exclusive possession and control over the affected property and does by his signature consent to the move and states that the applicant has in hand paid or secured the payment of the anticipated cost of loss or damage to his property.

i. Single-trip permits for movement on the primary highway system shall be issued:

(1) By the traffic weight operations department (permit section), Iowa state highway commission, Ames, Iowa, upon receipt of permit application and the permit fee by mail.

(2) When the permit applicant appears in person at the traffic weight operations department (permit section), Ames, Iowa.

(3) By telephone—telegraph when load does not exceed 90,000 pounds total gross weight, width does not exceed 12 feet 5 inches, over-all length does not exceed 80 feet, height does not exceed 14 feet 4 inches (provided specific route will allow the height of the load). The permit section may be contacted directly by telephone except for the movement of mobile homes and buildings for which a permit must be submitted in person or by mail at the permit office. Upon approval of the permit application submitted, a telegram permit may then be issued provided that in cases where an escort is required for the move, an approved civilian or official escort is indicated on the application. In all cases the permit fee must be received prior to the issuance of the permit.

(4) By the highway commission resident maintenance engineer's office when the vehicle and load does not exceed (without traffic weight operations concurrence):

75,000 pounds total gross weight.

Twelve feet 5 inches in width and 18 feet 0 inches width of buildings.

Eighty feet 0 inches over-all length.

Fourteen feet 4 inches in height (provided specific route will allow the height of the load).

(5) By Iowa highway commission resident maintenance engineer's office when vehicle and load exceeds: (Must have traffic weight operations concurrence by telephone before the permit is issued).

75,000 pounds but not to exceed 90,000 pounds total gross weight.

Twelve feet 5 inches in width but not to exceed 40 feet provided official escort is obtained by the applicant.

Eighty feet 0 inches in length but not to

exceed 120 feet 0 inches provided approved escort is obtained by the applicant.

Fourteen feet 4 inches in height provided affected public utilities are contacted and proper line crews are available.

2.3(3) Warning devices for overdimension vehicles and loads operating under single-trip or annual permit as follows:

a. Mobile homes must display:

(1) A sign at least 14 inches high by 5 feet long marked "Oversize Load" with a minimum of 10-inch black letters on a yellow background and mounted on the rear of the mobile home. Such sign must be mounted on the rear of the load at least 7 feet above the highway surface measuring from the bottom of the sign.

(2) A similar sign as in "a" (1) above, mounted on the front bumper of the towing unit.

(3) Red Flags at least 18 inches square placed in holders on each corner of the front bumper of the towing unit and on the corners of the rear of the load.

b. Buildings and other loads exceeding 8 feet 0 inches in width and up to 65 feet in length must display:

(1) A sign at least 14 inches high by 5 feet long marked "Wide Load" with a minimum of 10-inch black letters on a yellow background and mounted on the rear of the load.

(2) A similar sign as in "b" (1) above, mounted on the front bumper of towing unit.

(3) Red flags at least 18 inches square placed in holders on each corner of the front bumper of the towing unit and on the corners of the rear of the load.

c. Loads exceeding 65 feet in length must display:

(1) A sign at least 14 inches high by 5 feet long marked "Long Load" with a minimum of 10-inch black letters on a yellow background and mounted on the rear of the load.

(2) A similar sign as in "c" (1) above, mounted on the front bumper of the towing unit.

(3) Two red flags at least 18 inches square and elevated 2 feet above the load and mounted at each rear corner of the hauling vehicle when overlength loads (example: poles, pipes, beams, etc.) are hauled where the above-described sign in "c" (1) is not practical. On these types of loads red flags or a flashing amber light shall be placed strategically on any load extension beyond the rear of the hauling vehicle. Such flashing light must be at least 5 inches in diameter and have at least 50 candlepower.

(4) Red flags at least 18 inches square placed in holders on each corner of the front bumper of the towing unit and on the rear corners of the load.

d. In those cases where the load being hauled is both long and wide and the over-all length exceeds 65 feet, the warning devices as described in "c" above shall be required.

e. Loads exceeding 73,280 pounds total gross weight shall not be required to display

warning devices unless width or length exceeds legal dimensions.

f. All warning devices described in this subrule shall be clean at all times and shall be removed or covered when the vehicle is not being operated under permit.

g. Warning signs not consistent with the wording requirements as described in 2.3(3) "a", "b", and "c" must be approved by the permit issuing authority prior to their usage on oversize vehicles and loads. Coloring schemes and dimensions of signs shall be consistent with the above requirements.

2.4(321E) Escorting—civilian and official.

2.4(1) Civilian escort authorization.

a. A blanket authorization is an authorization issued by the permit issuing authority for the escorting of vehicles and loads subject to these rules under circumstances where the escort driver is an employee of the permit holder.

b. An individual authorization is an authorization issued by the permit issuing authority for the escort of vehicles and loads subject to these rules under circumstances where the escort driver is an agent but not an employee of the permit holder or is an individual or an employee of another under contract to provide escort service for the permit holder.

c. Permit issuing authorities may in their discretion issue blanket escort authorization to all annual permit holders and to permit holders when it is necessary to co-operate with:

(1) National defense officials.

(2) Cities, towns, counties or other agencies of this state or other states in response to national or other disasters.

(3) Public or private utilities in order that they may maintain their public service.

(4) Businesses where in the ordinary course of the permit holder's business it is necessary to move vehicles with loads that qualify for single-trip permits.

2.4(2) General escorting requirements.

a. Shall use a vehicle of a general size approximating that of a normal passenger automobile with sufficient mobility so as to be able to avoid and assist in the event of an emergency and of such design so as to afford clear and unobstructed vision both front and rear.

b. All escort operators shall be age twenty-one or over and shall be in possession of a valid chauffeur's license or have recently passed the written and vision examination for an Iowa chauffeur's license and have a valid operator's license.

c. Shall equip the escorting vehicle with an amber revolving light. Such light shall be at least seven inches high, seven inches in diameter with at least a 100-candlepower lamp and must provide 360° warning. During the escorting of a permit load, the revolving light shall be mounted on top of the escort vehicle and shall be burning. Additional escort vehi-

cle markings may be approved or required by the permit issuing authority.

d. Two red flags shall be mounted on the front bumper of the escort vehicle.

e. Shall maintain a distance of approximately 300 feet in front of the load and where required from the rear of the same except when traveling within the corporate limits of a city or town at which time the escort shall maintain a reasonable and proper distance consistent with existing traffic conditions.

f. A separate escort shall be provided for each load hauled under escort.

g. All traffic laws shall be obeyed.

h. The operator of the escort vehicle shall warn traffic by means of a red flag, of the approaching load at danger points such as bridges and corners where the loaded vehicle is going to make a turn.

i. Shall immediately prior to an escort, find the escorting vehicles to be in safe operational condition.

2.4(3) Individual authorization requirements.

a. All such operators shall submit their full names, the date of their birth, chauffeur's license number and date of issuance in writing to traffic weight operations in Ames, Iowa.

b. In those cases where the escort vehicle is not operated under blanket civilian authorization, the owner of the escort vehicle shall file with traffic weight operations proof of public liability insurance in the amounts of \$100,000-\$200,000-\$20,000. Such proof to be made by the submission of a certificate of insurance.

c. Upon compliance with the above, the individual civilian escort operator will receive proof of authorization from the director of traffic weight operations and shall be in possession of same throughout any move for which he is providing such service.

d. In consideration of the issuance of said authorization and in order to defray the expense of the same, the director shall charge a fee of five dollars, which authorization shall be good and effective for a term of one year from the time of its issuance, subject to the applicant's subsequent compliance with official rules promulgated under authority of chapter 321E of the Code.

2.4(4) Except as otherwise specifically provided, approved civilian and official escorts shall be required for movement under single-trip permit as follows:

a. One approved civilian escort shall be required when the vehicle with load exceeds:

(1) The roadway lane width and the total gross weight of the vehicle with load is 73,280 pounds or less and its width does not exceed 12 feet 5 inches and its length does not exceed 80 feet 0 inches and its height does not exceed 13 feet 6 inches.

(2) The roadway lane width and the total gross weight of the vehicle with load is

more than 73,280 pounds but less than 75,000 pounds and its width does not exceed 12 feet 0 inches and the length does not exceed 80 feet 0 inches.

(3) 75,000 pounds but not more than 90,000 pounds total gross weight and its width does not exceed 12 feet 0 inches and its length does not exceed 80 feet 0 inches.

(4) Eighty feet 0 inches in length but not more than 120 feet 0 inches in length, or the vehicle is one especially designed for the exclusive movement of grain bins with a length of more than 80 feet 0 inches but not more than 120 feet 0 inches and their widths do not exceed 8 feet 0 inches and their total gross weights do not exceed 73,280 pounds and their heights do not exceed 13 feet 6 inches.

b. An official escort operator shall include any peace officer, (sheriff, deputy sheriff, policeman, highway patrolman, and uniformed highway commission escort) on or off duty and one such official escort shall be provided when the vehicle with load exceeds:

(1) Twelve feet 5 inches in width.

(2) Eighty feet 0 inches in length and either its width exceeds 8 feet 0 inches or its height exceeds 13 feet 6 inches or its total gross weight exceeds 73,280 pounds.

(3) 75,000 pounds total gross weight and either its width exceeds 12 feet 0 inches or its length exceeds 80 feet 0 inches.

(4) 90,000 pounds total gross weight.

2.4(5) Approved escorts shall be required when movement is made under annual permit as follows:

One approved civilian escort shall be required when:

a. Vehicle and load exceeds the roadway lane width of the highway or street being traversed.

b. The length of the vehicle and load exceeds 80 feet 0 inches.

2.5(321E) Permit violation. All permit violations are to be reported to traffic weight operations by the arresting officers who in turn will make periodic reports to the commission of the type and number of violations.

2.5(1) Permit violation reports by the arresting officer to include:

a. The time, date, location, summons number, the arresting officer's signature, the nature of the violation or violations, the name of the violator, the name of the permit holder and type and number of permit.

b. Remarks of the arresting officer.

The arresting officer shall note the circumstances of the violation to include those tending to show the nature of the same. The arresting officer should also indicate whether in his opinion the violation was intentional or inadvertent.

c. Remarks by the arrested driver.

(1) The arrested driver should read the arresting officer's report and should note

any corrections to the report and give a summary of his reason for the violation.

(2) The arrested driver may sign the report.

d. Remarks by the magistrate.

(1) The magistrate before whom the case is presented shall be requested to indicate his decision and also his opinion as to whether the violation was intentional or inadvertent.

(2) The magistrate shall sign the report.

e. The report forms are to be submitted at the end of each day to traffic weight operations office in Ames, Iowa, by the arresting officer. Said forms shall be completed in triplicate, the original copy going to the arrested driver, the second copy to the Ames office and the third copy retained by the arresting officer.

f. The permit violation reports are to be filed by the traffic weight operations office and a record of the reports properly kept up to date.

2.5(2) Permit violation reports by traffic weight operations to the commission.

a. The director of traffic weight operations is to report to the Iowa state highway commission that a permit holder has accumulated violations on five or more occasions or has one violation in a manner as to indicate a willful violation by the permit holder.

b. Such report shall contain:

(1) The name of the permit holder in violation and the type and number of the permit.

(2) The director of traffic weight operations opinion as to whether or not the permit holder is operating in willful disregard for the

safety of the traveling public and adjacent private or public property owners.

c. Such opinion shall be supported by a factual summary of all violations of sections 321.454, 321.456, 321.457, 321.463 and of chapter 321E of the Code as reported for every occasion upon which the violation occurred.

d. Before formulating such opinions the director of traffic weight operations shall consider the evidence relating to:

(1) The character of the violation.

(2) The gravity of the violation.

(3) The extent of the operations of any vehicles by or on behalf of the permit holder upon the public highways of this state which did not involve violations.

e. Such report shall contain recommendations by the director of traffic weight operations to amend, modify, or revoke the permit.

2.5(3) Hearing to show cause why permit should not be amended, revoked or modified.

If the Iowa state highway commission shall concur in the recommendations as mentioned in 2.5(2)"e", above, the permit holder shall be notified of the time and place at which he might appear to present cause why the permit or future permits should not be amended, modified or revoked.

2.6(321E) Iowa state highway commission Forms 563, 564 and 566 through 568 to be used for the issuance of permits and escort authorization for movements of oversize-overweight vehicles and loads on the primary highway system of Iowa. Highway commission Form 569 is for the reporting of permit violations on Iowa roads.

Form 566

IOWA STATE HIGHWAY COMMISSION

CIVILIAN ESCORT BLANKET APPLICATION AND AUTHORIZATION

Blanket Authorization No. _____
 Date Issued _____
 Authorization Fee \$5.00

Applicant _____
 (Company Name)

Address _____
 Ins. Co. _____

Policy No. _____
 Expiration Date _____

Applicant does hereby agree to and does hereby state that the civilian escort driver escorting under authority of this authorization will be and is an employee of the applicant and not an independent contractor or agent of the applicant or any third party who is not also applicant's employee and that escort driver complies with the escort provisions as indicated on the back of this form.

 Signature and official title

Applicant is hereby authorized to provide civilian escort service for movement of vehicles and loads of excess size and weight under permit as provided in chapter 321E of the Code of Iowa.

Expires _____, 19_____
 Fee Received _____

Director, Traffic Weight Operations

BY _____

Copy of this authorization must be in the possession of the civilian escort during escorting of a permit load. Make fee payable to the Iowa State Highway Commission.

Form 567

IOWA STATE HIGHWAY COMMISSION
 CIVILIAN ESCORT APPLICATION AND AUTHORIZATION

Authorization No. _____

Date Issued _____

Authorization Fee \$5.00

Applicant _____

(Please print)

Address _____

Ins. Co. _____

Policy No. _____ Expiration Date _____

Birth Date _____ Chauffer's No. _____ Date Issued _____

I do by my signature hereby certify that the above is true and correct.

Applicant's Signature

The above has been approved as a civilian escort and is hereby authorized to provide civilian escort service for movement of vehicles and loads of excess size and weight under permit as provided in chapter 321E of the Code of Iowa.

Expires _____, 19____

Fee Received _____

Director, Traffic Weight Operations

BY _____

Authorization must be in the possession of the civilian escort during escorting of a permit movement. Make fees payable to Iowa State Highway Commission.

Back Side of Form 566 and 567

AUTHORIZED CIVILIAN ESCORT PROVISIONS

1. Shall use a vehicle of a general size approximating that of a normal passenger automobile with sufficient mobility so as to be able to avoid and to assist in the event of an emergency and of such design so as to afford clear and unobstructed vision both front and rear.
2. All escort operators shall be age 21 or over and shall be in possession of a valid chauffeur's license or have recently passed the written and vision examination for an Iowa chauffeur's license and have a valid operator's license.
3. Shall equip the escorting vehicle with an amber revolving light. Such light shall be at least seven inches high, seven inches in diameter with at least a 100-candlepower lamp and must provide 360° warning. During the escorting of a permit load, the revolving light shall be mounted on top of the escort vehicle and shall be burning.
4. Two red flags shall be mounted on the front bumper of the escort vehicle.
5. Shall maintain a distance of approximately 300 feet in front of the load and where required from the rear of the same except when traveling within the corporate limits of a city or town at which time the escort shall maintain a reasonable and proper distance consistent with existing traffic conditions.
6. A separate escort shall be provided for each load hauled under escort.
7. All traffic laws shall be obeyed.
8. The operator of the pilot vehicle shall warn traffic by means of a red flag, of the approaching load at danger points such as bridges and corners where the loaded vehicle is going to make a turn.
9. Shall immediately prior to an escort, find the escorting vehicles to be in safe operational condition.

Form 568

CIVILIAN ESCORT FORM
Chauffeur's License Requirements

Iowa State Highway Commission
Ames, Iowa

Name _____
Address _____
Birth Date _____
Operator's License No. _____

Operator's Signature

The aforementioned has successfully completed the written examination and vision examination for an Iowa chauffeur's license on _____, 19____
Remarks: _____

Examiner's Signature No.

Send completed form to T.W.O., Highway Commission, Ames, Iowa.

Form 569

PERMIT VIOLATION REPORT

Date of Violation _____ Time _____ Location _____
Name of Violator _____
Address _____
Name of Permit Holder _____
Address _____
Permit Type _____ Number _____ Summons No. _____
*Nature of Violation or Violations _____

**Remarks by Arresting Officer _____

Signed _____
T.W.O. Officer

***Remarks by Arrested Driver _____

Signed _____
Driver

****Remarks by Magistrate _____

Signed _____
Magistrate

- *Arresting officer should note circumstances of violation.
- **Arresting officer should indicate whether in his opinion, the violation was intentional or inadvertent.
- ***Arrested driver may sign his name at his option.
- ****Magistrate shall be requested to indicate his decision and opinion as to whether the violation was intentional or inadvertent.

STATE OF IOWA
TRAFFIC WEIGHT OPERATIONS
Iowa State Highway Commission
Ames, Iowa

Permit and Receipt No. _____
Date of Permit _____
Remit \$5 fee payable to Iowa Highway Commission.

SINGLE TRIP

Application and Permit and Receipt

APPLICANT MUST FULLY COMPLETE THIS FORM
(Please Print or Use Typewriter)

Name _____ Address _____

1. Applicant _____
2. Owner of Vehicle _____
3. Owner of Load _____
4. Is this move for hire? Yes _____ No _____ If yes, Ia.C.C. or I.C.C. No. _____
Towing vehicle _____ Towed vehicle _____
5. General _____
Truck _____ Semitrailer _____
Truck-tractor _____ Other _____
6. Make _____
7. License No. _____ and State _____
8. License Class _____ (tonnage)
9. Empty Weight _____
10. Total Gross Weight _____
11. Object or load to be moved:
General description _____
Make _____
License No. _____
Serial No. _____
12. Over-all dimensions of vehicle and load:
Length _____ Ft. _____ In.
Height _____ Ft. _____ In.
Width _____ Ft. _____ In.
Front-End Projection _____ Ft. _____ In.
13. Axle spacing 1st _____ 2nd _____ 3rd _____
4th _____ 5th _____ 6th _____
14. Escort: Name and Authorization Number _____
15. Maximum gross weight of any 2-axle assemb. _____ lbs. Maximum gross weight of any 3-axle assembly _____ lbs.
16. From _____ To _____ Routes _____
17. Total Distance _____ miles.
18. Is any loss or damage to private or public property likely to occur as a result of the move? Yes _____ No _____ If yes, estimate amount _____
19. Does vehicle meet the safety standards as prescribed in sections 321.381 through 321.451 of the Iowa Code? Yes _____ No _____
20. Is it possible to make vehicle or load legal (width 8', height 13'6", length 55', weight 73,280 pounds) by adjusting manner or transport? Yes _____ No _____
If no, explain _____
21. Does applicant have public liability insurance (\$100/200/20) on file with Traffic Weight Office, Ames, Iowa? Yes _____ No _____ If no, SUBMIT CERTIFICATE OF INSURANCE
22. I _____ do solemnly swear that I have read the entire permit and application and have fully completed all statements and provided all data called for herein truthfully and correctly and I agree to abide by all General Provisions set forth herein including those found on the reverse side hereof.

(Notary Seal)

Signature _____

23. Subscribed and sworn to before me this _____ day of _____, 19____
_____ in and for _____ County, State of _____
Notary Public

NOTE—DO NOT WRITE BELOW FOR OFFICIAL USE ONLY

24. THIS IS YOUR AUTHORITY TO MOVE _____
Of _____ length, _____ width, _____ height, _____ Front-End Projection, _____ Total
Gross Weight.
For _____ miles. Speed shall not exceed _____ MPH. Permit expires at sunset
_____, 19____.
The vehicle, vehicle with load, shall be escorted by _____ Civilian Approved
_____ Official Escort.

25. Movement shall be made in compliance with 1 through 24 above and with all General Provisions of this permit. This permit is voidable for falsification of the application or for any violation of a term, condition, provision or limitation of the permit.

Director, Traffic Weight Operations

BY _____
Permit Officer

RECEIVED FROM _____ CASHIER'S RECEIPT NO. _____
_____ DOLLARS FOR PERMIT DATE _____, 19____
_____ DOLLARS FOR TELEPHONE CHARGE TO ACCOUNT _____
_____ CHARGE
_____ TOTAL DOLLARS

GENERAL PROVISIONS

State of Iowa and highway commission assume no responsibility for property of the permit holder by issuance of this permit.

The permit holder shall comply with terms and conditions of the permit, take all reasonable precautions to protect and safeguard the lives and property of the traveling public and adjacent property owners, and shall hold the state of Iowa and highway commission harmless of any damages that may be sustained on account of such move.

The permit holder shall hold the state and the highway commission harmless for any damages that may result to primary highways by movement made hereunder and shall reimburse state or highway commission for any expenditure which state or highway commission may have to make on account of such move.

Nothing in the permit shall be construed as waiving any load limitations which have been or which might be established on any bridge or any road with embargo signs nor the wheel base maximum load limitations of subrule 2.1(16) of the Rules for the issuance of permits.

Permit and any supplements or additions thereto shall be void in case the weights or dimensions of the vehicle and load as operated exceed the weights or dimensions as provided in the permit and supplements or additions thereto.

No vehicle or combination of vehicles of illegal dimensions, with or without load, shall be moved on Iowa highways without permit.

Permit is valid only for the transporting of a single article per move exceeding statutory size or weight limits or both, and which cannot reasonably be divided, or reduced to statutory size and weight limits, etc., except in the transportation of property consisting of more than one article exceeding the statutory size limits when the statutory weight limits are not exceeded and the additional articles transported do not exceed statutory size in any way in which such limits would not be exceeded by the single article.

Permit shall be carried in the cab of the vehicle for which the permit is issued and shall be available for inspection at all times. Vehicles for which permit is issued shall be open to inspection by any peace officer or any authorized agent of any permit granting authority.

Movements under permit shall be made only during daylight hours unless it is established by the issuing authority that movement can be better accomplished at another period of time because of traffic volume conditions. Except as provided in section 321.457 of the Code, no movement of overdimension vehicles shall be permitted on Saturdays, Sundays, or the day of, before or after the following holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day and Veterans' Day or days of special events when abnormally high traffic volumes can be expected.

The permit vehicle shall not exceed, consistent with the safety of the traveling public, that speed specified by this permit.

The permit holder must take steps necessary to avoid and reduce traffic congestion by maintaining proper traffic interval, temporarily relinquishing the travel way in order to provide a passing opportunity for following vehicles desiring to travel faster than the prescribed speed of the permit vehicle. This shall be done as soon as conveniently possible as soon as a group of two or more vehicles have accumulated in back of permit vehicle.

The permit holder must notify the Director of Traffic Weight Operations, Highway Commission, Ames, Iowa, in writing of the fact of the occurrence of any reportable motor vehicle accident involving any permit vehicle.

All vehicles and loads exceeding legal dimensions must display warning devices as stipulated in subrule 2.3(3) of the Rules for the issuance of permits.

STATE OF IOWA
TRAFFIC WEIGHT OPERATIONS
Iowa State Highway Commission
Ames, Iowa

Permit and Receipt No. _____
Date of Permit _____
Remit \$10 fee payable to Iowa Highway
Commission

ANNUAL

Application and Permit and Receipt
APPLICANT MUST FULLY COMPLETE THIS FORM
(Please Print or Use Typewriter)

Name _____ Address _____

- 1. Applicant _____
- 2. Owner of Vehicle(s) _____
- 3. Owner of Load _____
- 4. Is this move for hire? Yes _____ No _____ If yes, Ia. C.C. or I.C.C. No. _____ Towing
Vehicle _____ Towed Vehicle _____
- 5. General _____
Truck _____ Semitrailer _____
Truck Tractor _____ Other _____
- 6. Describe typical load: Check the appropri-
ate Construction Equip. _____ Construction
materials _____ for heavy equip. (SME) includ-
ing towed equip. Yes _____ No _____
Portable Bldgs. _____
Agriculture Equip. _____
Poles & Pipe _____ Military _____
Mobile Homes _____ Other _____
- 8. Make _____
- 9. Serial No. _____
- 10. License No. _____
and State _____
- 11. License Class _____
(tonnage)
- 12. Empty Weight _____
- 13. Total Gross _____
Weight _____
- 14. Axle Spacing 1st _____ 2nd _____ 3rd _____ 4th _____ 5th _____ 6th _____
- 15. Maximum gross weight on any single axle 18,540 pounds which includes tolerance.
Maximum gross weight of vehicle and load 73,280 pounds which includes tolerance.
Maximum gross weight of any 2-axle assembly 34,000 pounds, of any 3-axle assembly 42,000
pounds.
- 7. Over-all dimensions of vehicle and load
Length _____ Ft. _____ In.
Width _____ Ft. _____ In.
Height _____ Ft. _____ In.
Front-End Projection _____ Ft. _____ In.

NATURE OF MOVE—Answer all the following questions:

- 16. Is it possible to make vehicle or load legal (width 8', height 13'6", length 55', weight 73,280
pounds) by adjusting manner or transport? Yes _____ No _____ If no, explain _____

- 17. Does applicant have public liability insurance (\$100/200/20) on file with Traffic Weight Office,
Ames, Iowa? Yes _____ No _____ IF NO, SUBMIT CERTIFICATE OF INSURANCE.
- 18. Does vehicle meet the safety standards as prescribed in sections 321.381 through 321.451 of
the Iowa Code? Yes _____ No _____
- 19. I _____ do solemnly swear that I have read the entire permit and appli-
cation and have fully completed all statements and provided all data called for herein truth-
fully and correctly and I agree to abide by all General Provisions set forth herein including
those found on the reverse side hereof.

Signature of Applicant _____

(Notary Seal)

20. Subscribed and sworn to before me this _____ day of _____, 19_____
in and for _____ County, State of _____ Notary Public

NOTE—DO NOT WRITE BELOW FOR OFFICIAL USE ONLY

21. THIS IS YOUR AUTHORITY TO MOVE _____

Of _____length, _____width, _____height, _____Front-End Projection, _____Total Gross Weight.

For _____ miles. Speed shall not exceed _____ MPH. Permit expires at sunset _____, 19____

22. Movement shall be made in compliance with 1 through 21 above and with all General Provisions of this permit. This permit is voidable for falsification of the application or for any violation of a term, condition, provision, or limitation of the permit.

Director, Traffic Weight Operations

BY _____
Permit Officer

RECEIVED FROM _____ CASHIER'S RECEIPT NO. _____
_____ DOLLARS FOR PERMIT DATE _____, 19____

GENERAL PROVISIONS

State of Iowa and Highway Commission assume no responsibility for property of permit holder by issuance of this permit.

The permit holder shall comply with terms and conditions of the permit, take all reasonable precautions to protect and safeguard the lives and property of the traveling public and adjacent property owners, and shall hold the state of Iowa and Highway Commission harmless of any damages that may be sustained on account of such move.

The permit holder shall hold the state and the Highway Commission harmless for any damages that may result to primary highways by movement made hereunder and shall reimburse state or Highway Commission for any expenditure which state or Highway Commission may have to make on account of such move.

Nothing in the permit shall be construed as waiving any load limitations which have been or which might be established on any bridge or any road posted with embargo signs nor the wheel base, maximum load limitations of subrule 2.1(16) of the Rules for the issuance of permits.

Permit and any supplement or additions thereto shall be void in case the weights or dimensions of the vehicle and load as operated exceed the weights or dimensions as provided in the permit and supplements or additions thereto.

No vehicle or combination of vehicles of illegal dimensions, with or without load, shall be moved on Iowa highways without permit.

Permit is valid only for the transporting of a single article per move exceeding statutory size or weight limits or both, and which cannot reasonably be divided, or reduced to statutory size and weight limits, etc., except in the transportation of property consisting of more than one article exceeding the statutory size limits when the statutory weight limits are not exceeded and the additional articles transported do not exceed statutory size in any way in which such limits would not be exceeded by the single article.

Permit shall be carried in the cab of the vehicle for which this permit is issued and shall be available for inspection at all times. Vehicles for which the permit is issued shall be open to inspection by any peace officer or any authorized agent of any permit granting authority.

Movements under permit shall be made only during daylight hours unless it is established by the issuing authority that movement can be better accomplished at another period of time because of traffic volume conditions. Except as provided in section 321.457 of the Code, no movement of overdimension vehicles shall be permitted on Saturdays, Sundays or the day of, before or after the following holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day, and Veterans' Day or days of special events when abnormally high traffic volumes can be expected.

The permit vehicle shall not exceed, consistent with the safety of the traveling public, that speed specified by this permit.

The permit holder must take steps necessary to avoid and reduce traffic congestion by maintaining proper traffic interval, temporarily relinquishing the travel way in order to provide a passing opportunity for following vehicles desiring to travel faster than the prescribed speed of the permit vehicle. This shall be done as soon as conveniently possible as soon as a group of two or more vehicles have accumulated in back of permit vehicle.

The permit holder must notify the Director of Traffic Weight Operations, Highway Commission, Ames, Iowa, in writing of the fact of the occurrence of any reportable motor vehicle accident involving any permit vehicle.

Any vehicle and load exceeding 12'5" in width or exceeding 70' in length shall be limited to maximum trip distances of fifty miles. All vehicles and loads exceeding legal dimensions must display warning devices as stipulated in subrule 2.3(3) of the Rules for the issuance of permit. Approved escort shall be provided for the movement of vehicles and loads which exceed the roadway lane width or eighty feet in length when operated under annual permit.

[Filed February 5, 1969; amended May 1, 1969, October 14, 1969, April 30, 1970]

CHAPTER 3
FUNCTIONAL CLASSIFICATION OF
HIGHWAYS

3.1(306) Roads and streets to be classified. All roads and streets in legal existence as of January 1, 1970, shall be classified. All roads and streets in the category of "proposed" will be excluded from this classification study.

3.2(306) Meeting dates for county classification boards. Following the selection of the classification board members for each county, the three-member board shall meet as soon as practical for the purpose of organization and establishment of schedules. Subsequent meeting dates will be set at the discretion of the board but shall include one meeting annually in all subsequent years following the initial classification process.

3.3(306) Recording secretary. The designation of a recording secretary, who shall provide the minutes for each board meeting, will be the responsibility of each individual classification board.

3.4(306) Public hearing. Each respective county shall be responsible for the publishing of hearing information, for providing the place of the hearing and for recording the proceedings of the hearing.

3.5(306) Transcripts of hearings. Transcripts of hearings, tape recorded or typed, shall be the responsibility of the classification boards and will be retained in their files.

3.6(306) Order of classification. To achieve proper and logical functional classification it is necessary to select the highest order systems first and proceed from that point down through the hierarchy to the lowest order systems. System selection shall be carried out in the following order.

3.6(1) Rural systems.

- a. Freeway-expressway
- b. Arterial
- c. Arterial connector
- d. Trunk
- e. Trunk collector
- f. Area service

3.6(2) Municipal systems.

- a. Freeway-expressway extensions
- b. Arterial extensions
- c. Arterial connector extensions
- d. Trunk extensions
- e. Trunk collector extensions
- f. Municipal arterial
- g. Municipal collector
- h. Municipal service

3.7(306) Classifications of county line roads. When classifying county line roads, each

county shall classify only the roads that border the county on the north and west. This procedure is for the purpose of eliminating confusion in record-keeping and for providing uniform classification plans.

3.8(306) Classification of roads on corporation lines. To eliminate double reporting of mileage, and provide uniform classification plans, all roads on corporation lines shall be classified as municipal streets and considered to be within the corresponding municipality. Where streets occur on corporation lines common to two municipalities the street classification shall be reported by the municipality on the south or east.

3.9(306) State park and institutional road system classification. This classification involves only identifying and tabulating the miles of road within each park or institution. The highway commission presently possesses all information necessary for this determination and will, therefore, complete this classification. To provide continuity of other systems the county classification boards shall, however, determine the location of extensions of freeway-expressways, arterials, arterial connectors, trunks, trunk collectors, municipal arterials, and municipal collectors within these areas.

3.10(306) Data submittal. Each county classification board shall submit the following data to the highway commission at the time they complete their initial classification and at any future time when adjustments in the classification are necessary.

3.10(1) Letter of transmittal.

3.10(2) Network maps. Each board shall submit a map of their county and one map of each municipality in the county showing the selected classifications by the following color codes. When future adjustments are required only maps of the effected area are required.

a. County map showing rural systems.

Freeway-expressway	Red
Arterial	Orange
Arterial connector	Green
Trunk	Blue
Trunk collector	Brown
Area service	Black

b. Municipal maps.

Freeway-expressway extensions	Red
Arterial extensions	Orange
Arterial connector extensions	Green
Trunk extensions	Blue
Trunk collector extensions	Brown
Municipal arterial	Purple
Municipal collector	Yellow
Municipal service	Black

3.10(3) Mileage summary forms. These forms will be furnished to the county classifi-

ation boards by the highway commission with the requirement that each board fill in the following data.

a. Summary of mileage making up each functional class within the appropriate county and the cities and towns therein.

b. Listing of each segment of road contained in the individual classes except for the area service system and the municipal service system.

[Filed July 14, 1970]

CHAPTER 4

Reserved for future use

CHAPTER 5

OUTDOOR ADVERTISING

5.1(306B) Purpose. To provide execution of chapter 306B of the Code, hereinafter, called the "Act", the Iowa state highway commission hereby declares:

5.1(1) To promote the safety, convenience, and enjoyment of public travel and free flow of interstate commerce and to protect the public investment in the Iowa system of interstate and defense highways, hereinafter called the "Interstate System", it is in the public interest to control the use of and to improve areas adjacent to such system by controlling the erection and maintenance of outdoor advertising signs, displays and devices adjacent to that system.

5.1(2) It is a state policy that the erection and maintenance of outdoor advertising signs, displays, or devices within six hundred and sixty feet of the edge of the right of way and visible from the main-traveled way of all portions of the interstate system, should be regulated, consistent with state standards as prepared and promulgated by the Iowa state highway commission.

5.2(306B) Definitions. The following terms when used in the standards in this [chapter] have the following meanings:

5.2(1) "Acquired for right of way" means acquired for right of way for any public road by the state of Iowa, federal government, or a county, city, or other political subdivision of the state, by donation, dedication, purchase, condemnation, use, or otherwise. The date of acquisition shall be the date upon which title (whether fee title or a lesser interest) vested in the public for right of way purposes under applicable state law.

5.2(2) "Advertising device" includes any outdoor sign, display, device, figure, painting, drawing, message, placard, poster, billboard, or any other device designed, intended, or used to advertise or give information in the nature of advertising and having the capacity of being visible from the traveled portion of any highway of the interstate system in this state.

5.2(3) "Center line of the highway" means a line equidistant from the edges of the median separating the main-traveled ways of a divided interstate highway.

5.2(4) "Controlled portion of the interstate system" means all segments of that system of primary highways officially designated as part of the National System of Interstate and Defense Highways and approved by the appropriate authority of the federal government except:

a. Those segments of said system located without the boundaries of incorporated municipalities as such boundaries existed on September 21, 1959, wherein the land use as of September 21, 1959, was clearly established by Iowa law as industrial or commercial.

b. Those segments of said system located within the boundaries of incorporated municipalities as such boundaries existed on September 21, 1959, wherein the use of the real property adjacent to said system is subject to municipal regulation or control and which traverse areas zoned on or after September 21, 1959, industrial or commercial.

5.2(5) "Entrance roadway" means any public road or turning roadway, including acceleration lanes, by which traffic may enter the main-traveled way of an interstate highway from the general road system within Iowa, irrespective of whether traffic may also leave the main-traveled way by such road or turning roadway.

5.2(6) "Erect" means to construct, build, raise, assemble, place, affix, attach, create, paint, draw, or in any other way bring into being or establish.

5.2(7) "Exit roadway" means any public road or turning roadway, including deceleration lanes, by which traffic may leave the main-traveled way of an interstate highway to reach the general road system within Iowa, irrespective of whether traffic may also enter the main-traveled way by such road or turning roadway.

5.2(8) "Interstate System" means the system of highways as defined in Title 23 U.S.C., subsection "d" or amendments thereto.

5.2(9) "Legible" means capable of being read without visual aid by a person of normal visual acuity.

5.2(10) "Maintain" means to allow to exist.

5.2(11) "Main-traveled way" means the traveled way of an interstate highway on which through traffic is carried. In the case of a divided highway, the traveled way of each of the separated roadways for traffic in opposite directions is a main-traveled way. It does not include such facilities as frontage roads, turning roadways, or parking areas.

5.2(12) "National Policy" means the provisions relating to control of advertising devices adjacent to the interstate system contained in Title 23 U.S.C. 131 or amendments thereto and the national standards promulgated pursuant to such provisions.

5.2(13) "Protected areas" means all areas inside the boundaries of Iowa which are adjacent to and within six hundred and sixty feet of the edge of the right of way of all con-

trolled portions of the interstate system within Iowa. Where a controlled portion of the interstate system terminates at an Iowa boundary which is not perpendicular or normal to the center line of the highway, "protected areas" also means inside the boundary of Iowa which are within six hundred sixty feet of the edge of the right of way of the interstate highway in the adjoining state.

5.2(14) "Scenic area" means any public park or area of particular scenic beauty or historical significance designated by or pursuant to Iowa law as a scenic area.

5.2(15) "Sign" means any outdoor sign, display, device, figure, painting, drawing, message, placard, poster, billboard, or other thing which is designed, intended, or used to advertise or inform, any part of the advertising or informative contents of which is visible from any place on the main-traveled way of a controlled portion of the interstate system.

5.2(16) "State" means the state of Iowa within the boundaries of which a portion of the interstate system is located.

5.2(17) "State law" means an Iowa constitutional provision or statute, or an ordinance, rule or regulation enacted or adopted by an Iowa agency or political subdivision of Iowa pursuant to Iowa Constitution or statute.

5.2(18) "Trade name" shall include brand name, trade-mark, distinctive symbol, or other similar device or thing used to identify particular products or services.

5.2(19) "Traveled way" means the portion of a roadway for the movement of vehicles, exclusive of shoulders.

5.2(20) "Turning roadway" means a connecting roadway for traffic turning between two intersection legs of an interchange.

5.2(21) "Visible" means capable of being seen (whether or not legible) without visual aid by a person of normal visual acuity.

5.2(22) "Advertising area" means portions of protected areas which are either zoned or unzoned commercial or industrial areas.

5.2(23) "Zoned commercial or industrial areas" mean those portions of protected areas zoned industrial or commercial under authority of any law, regulation or ordinance of the state or any of its subdivisions.

5.2(24) "Unzoned commercial or industrial areas" means those portions of protected areas not zoned by state or local law, regulation or ordinance, which are occupied by one or more industrial or commercial activity, other than outdoor advertising signs, and the lands along interstate highways for a distance of six hundred and sixty feet immediately adjacent to the activities.

All measurements shall be from the outer edges of the regularly used buildings, parking lots, storage or processing areas of the activities in from the property lines of the activities, and shall be along or parallel to the edge of pavement of the highway. Measurements shall

not be from the property lines of the activities; unless said property lines coincide with the limits of the activities. Unzoned industrial or commercial areas shall not include land on the opposite side of the highway from the activities or land predominantly used for residential purposes.

5.2(25) "Commercial or industrial activity" means those activities generally recognized as commercial or industrial by zoning authorities in this state except that none of the following activities shall be considered commercial or industrial:

a. Outdoor advertising structures.

b. Agricultural, forestry, grazing, farming, and related activities, including, but not limited to, wayside fresh produce stands.

c. Transient or temporary activities.

d. Activities not visible from the main-traveled way.

e. Activities more than three hundred feet from the nearest edge of the right of way.

f. Activities conducted in a building principally used as a residence.

g. Railroad tracks and minor spurs.

h. Activities normally and regularly in operation less than five months per year.

i. Should any commercial or industrial activity, which has been used in defining or delineating an unzoned area, be abandoned, any sign located within the former unzoned area shall be nonconforming.

5.2(26) "Advertised activity" means regularly used buildings, parking lots, storage or processing areas used in furtherance of the activity or activities being conducted on the property on which they are located.

5.2(27) "Premise" means those lands for sale or lease or used in the operation of the advertised activity. Except where the advertising device advertises the sale or lease of the real property the property line is not to be considered the boundary of the premise unless the land on which the sign is located is used in furtherance of the advertised activity for purpose other than outdoor advertising.

5.2(28) "Informational site" means an area or site established and maintained within or adjacent to the right of way of a highway on the interstate system by or under the supervision or control of the Iowa state highway commission wherein panels for the display of advertising and informational signs may be erected and maintained.

5.2(29) "Structure" means any sign-supporting device including but not limited to buildings.

5.3(306B) Measurements of distance. Distance from the edge of a right of way shall be measured horizontally along a line normal or perpendicular to the center line of the highway.

5.4(306B) Signs that may not be permitted in protected areas. Erection or maintenance of the following signs may not be permitted in protected areas.

5.4(1) Signs advertising activities that are illegal under state or federal laws or regulations in effect at the location of such signs or at the location of such activities.

5.4(2) Obsolete signs.

5.4(3) Signs that are not maintained in good repair so as to be legible.

5.4(4) Signs that are not securely affixed to a substantial structure.

5.4(5) Signs that are not consistent with all the standards as set forth in this policy.

5.5(306B) Signs that may be permitted in protected areas. Erection or maintenance of the following signs may be permitted in protected areas.

5.5(1) Class 1—Official signs. Directional or other official signs or notices erected and maintained by public officers or agencies pursuant to and in accordance with direction or authorization contained in Iowa law, for the purpose of carrying out an official duty or responsibility.

5.5(2) Class 2—On premise signs. Signs not prohibited by Iowa law which are consistent with the applicable provisions of this subrule and 5.7(306B) and which advertise the sale or lease of, or activities being conducted upon, the real property where the signs are located.

a. Not more than one such sign advertising the sale or lease of the same property may be permitted under this class in such a manner as to be visible to traffic proceeding in any one direction on any one interstate highway.

b. Not more than one such sign, visible to traffic proceeding in any one direction on any one interstate highway and advertising activities being conducted upon the real property where the sign is located, may be permitted under this class more than fifty feet from the advertised activity.

5.5(3) Class 3—Signs which advertise activities being conducted within twelve air miles. Signs in compliance with national policy and these rules which advertise activities being conducted within twelve air miles of the place where such signs are located.

5.5(4) Class 4—Signs in the specific interest of the traveling public. Signs in compliance with national policy and these rules which are designed to give information in the specific interest of the traveling public.

5.5(5) A Class 2 or Class 3 sign, except a Class 2 sign not more than fifty feet from the advertised activity, that displays any trade name which refers to or identifies any service rendered or product sold, used or otherwise handled more than twelve air miles from such sign, may not be permitted unless the name of the advertised activity which is within twelve air miles of such sign is displayed as conspicuously as such trade name.

5.5(6) Only information about public places operated by federal, state or local

governments, natural phenomena, historic sites, areas of natural scenic beauty or naturally suited for outdoor recreation, and places for camping, lodging, eating and vehicle service and repair is deemed to be in the specific interest of the traveling public. For the purposes of the standards in this part, a trade name is deemed to be information in the specific interests of the traveling public only if it identifies or characterizes such a place or identifies vehicle service, equipment, parts, accessories, fuels, oils, or lubricants being offered for sale at such a place. Signs displaying any other trade name may not be permitted under Class 4.

5.5(7) Notwithstanding the provisions of 5.5(5), Class 2 or Class 3 signs may display trade names in accordance with the provisions of 5.5(6).

5.5(8) Notwithstanding the provisions of rule 5.5(306B), Class 3 and Class 4 signs may be erected only in advertising areas.

5.5(9) Reserved for future use.

5.5(10) Reserved for future use.

5.6(306B) General provisions.

5.6(1) No Class 2, Class 3 or Class 4 sign may be permitted to be erected or maintained, in any manner inconsistent with the following.

5.6(2) No sign may be permitted which attempts or appears to attempt to direct the movement of traffic or which interferes with, imitates or resembles any official sign, signal or device.

5.6(3) No sign may be permitted which prevents the driver of a vehicle from having a clear and unobstructed view of official signs and approaching or merging traffic.

5.6(4) No sign may be permitted which contains, includes, or is illuminated by any flashing, intermittent or moving light or lights.

5.6(5) No lighting may be permitted to be used in any way in connection with any sign unless it is so effectively shielded as to prevent beams or rays of light from being directed at any portion of the main-traveled way of the interstate system, or is of such low intensity or brilliance as not to cause glare or to impair the vision of the driver of any motor vehicle, or to otherwise interfere with any driver's operation of a motor vehicle.

5.6(6) No sign may be permitted which moves or has any animated moving parts.

5.6(7) No sign may be permitted to be erected or maintained upon trees or painted or drawn upon rocks or other natural features.

5.6(8) No sign may be permitted to exceed twenty feet in length, width, or height, or 150 square feet in area, including border and trim but excluding supports, except Class 2 signs not more than fifty feet from, and advertising activities being conducted upon, the real property where the sign is located.

5.7(306B) Exclusions.

5.7(1) The standards in this part shall not apply to markers, signs, and plaques in appreciation of sites of historical significance for the erection of which provisions are made in an agreement between Iowa and the secretary of commerce, as provided in the Act, unless such agreement expressly makes all or any part of the standards applicable.

5.8(306B) Class 3 and 4 signs within informational sites.

5.8(1) Informational sites for the erection and maintenance of Class 3 and Class 4 advertising and informational signs may be established in accordance with the regulations for the administration of federal aid for highways. The location and frequency of such sites shall be as determined by agreements between the appropriate federal authority and the Iowa state highway commission.

5.8(2) Class 3 and Class 4 signs may be permitted within such informational sites in protected areas in a manner consistent with the following provisions:

a. No sign may be permitted which is not placed upon a panel.

b. No panel may be permitted to exceed thirteen feet in height or twenty-five feet in length, including border and trim, but excluding supports.

c. No sign may be permitted to exceed twelve square feet in area, and nothing on such sign may be permitted to be legible from any place on the main-traveled way or in a turning roadway.

d. Not more than one sign concerning a single activity or place may be permitted within any one informational site.

e. Signs concerning a single activity or place may be permitted within more than one informational site, but no Class 3 sign which does not also qualify as a Class 4 sign may be permitted within any informational site more than twelve air miles from the advertised activity.

f. No sign may be permitted which moves or has any animated or moving parts.

g. Illumination of panels by other than white lights may not be permitted, and no sign placed on any panel may be permitted to contain, include, or be illuminated by any other lights, or any flashing, intermittent, or moving lights.

h. No lighting may be permitted to be used in any way in connection with any panel unless it is so effectively shielded as to prevent beams or rays of light from being directed at any portion of the main-traveled way of the interstate system, or is of such low intensity or brilliance as not to cause glare or to impair the vision of the driver of any motor vehicle, or to otherwise interfere with any driver's operation of a motor vehicle.

5.9(306B) Class 3 and 4 signs outside information sites.

5.9(1) The erection or maintenance of the following signs may be permitted within advertising areas outside informational sites.

a. Class 3 signs which are visible only to interstate highway traffic not served by an informational site within twelve air miles of the advertised activity.

b. Class 4 signs which are more than twelve miles from the nearest panel within an informational site serving interstate highway traffic to which such signs are visible.

c. Signs that qualify both as Class 3 and Class 4 signs may be permitted in accordance with either paragraphs "a" or "b" of this sub-rule.

5.9(2) The erection or maintenance of signs permitted under 5.9(1) may not be permitted in any manner inconsistent with the following:

a. In advertising areas in advance of an intersection of the main-traveled way of an interstate highway and an exit roadway, such signs visible to interstate highway traffic approaching such intersection may not be permitted to exceed the following number:

Distance from intersections	Number of signs
0-2 miles	0
2-5 miles	6
More than 5 miles	1 per 1,000 feet

The specified distances shall be measured to the nearest point of the intersection of the traveled way of the exit roadway and the main-traveled way of the interstate highway.

b. No Class 3 or Class 4 signs may be permitted in advertising areas to be less than one thousand feet apart. For purposes of this measurement, the same shall be made without reference to any structure or Class 2 sign or signs.

c. Such signs may not be permitted in advertising areas adjacent to any interstate highway right of way upon any part of the width of which is constructed an entrance or exit roadway.

d. Such signs visible to interstate highway traffic which is approaching or has passed an entrance roadway may not be permitted in advertising areas for one thousand feet beyond the furthest point of the intersection between the traveled way of such entrance roadway and the main-traveled way of the interstate highway.

e. No such signs may be permitted in scenic areas designated as scenic beautification areas under authority of section 313.67 of the Code.

f. Not more than one such sign advertising activities being conducted as a single enterprise or giving information about a single place may be permitted to be erected or maintained in such manner as to be visible to traffic moving in any one direction on any one interstate highway.

5.9(3) No Class 3 or 4 signs other than those permitted by this rule may be permitted

to be erected or maintained within advertising areas, outside informational sites.

5.10(306B) Authorization procedures.

5.10(1) All persons either maintaining signs or intending to erect and maintain signs within controlled portions of protected areas shall make application to the Iowa state highway commission for an erection and maintenance permit.

a. Erection and maintenance permits shall serve to:

(1) Inventory controlled portions of the interstate system, and

(2) Evidence authorization to maintain signs erected or to erect and maintain signs, and

(3) Evidence compliance with the Act and these rules.

b. Application for erection and maintenance permits shall:

(1) Be initiated through the Iowa state highway commission resident maintenance engineer in charge of the county in which the sign is or is to be located.

(2) Contain a written description with plat sufficient so as to enable said engineer to determine the proposed location of the sign.

(3) Contain a general description including the height, width, and area including border and trim but excluding supports of the sign which is the subject of the application.

(4) Where applicable, evidence of tentative approval of appropriate city or county officials (in instances of city or county zoning) must accompany the application.

(5) Applications for the erection and maintenance of signs shall not be submitted less than thirty days prior to need of authorization.

5.11(306B) Compliance procedures.

5.11(1) The Iowa state highway commission shall acquire by gifts, purchase or condemnation all rights and interests of all persons in and to signs erected prior to the effective date of these amendments and additions to the May 18, 1966, rules which were erected either prior to the effective date of the Act or after the effective date of the Act and which did comply with national policy and rules promulgated by the Iowa state highway commission when erected within controlled portions of the interstate system where the real property upon which the sign is located is:

a. Not within an advertising area in cases of Class 3 and Class 4 signs, and

b. Within advertising areas where Class 3 or Class 4 signs may be located but not on real property eligible for the erection and maintenance of such signs under these rules, and

c. Within advertising areas in the cases of Class 3 or Class 4 signs or either within or without advertising areas in cases of Class 2

signs more than fifty feet from the advertised activity on real property eligible for the erection of such signs and the sign does not comply with these rules and is not made to so comply within thirty days after notice by certified mail to the owner of the device and the owner of the land upon which the sign is located.

5.11(2) Where necessary to determine which Class 3 or Class 4 sign or signs shall be authorized, preference shall be given first, to those signs erected within advertising areas located on real property eligible for the erection of such signs which do comply with these rules, and second, to those signs located on real property eligible for the erection of such signs which do not but can be made to comply with these rules, and third, to the applicants by order of their application. For this purpose, the second preference shall expire and the Iowa state highway commission shall not consider any application for an erection and maintenance permit therefor, except as it must under the third preference, unless the sign owner makes application for an erection and maintenance permit within thirty days from the effective date of these additional rules, and the sign is made to comply with the same on or before the 20th day of December, 1967.

5.11(3) Any sign is a public nuisance where erected within controlled portions of the interstate system.

a. After the effective date of the Act which violates the provisions of the Act, or

b. After the effective date of those rules filed May 18, 1966, which fails to comply with such rules, or

c. After the effective date of these amendments and additions to the May 18, 1966, rules which fail to comply with the same.

5.11(4) The Iowa state highway commission shall after thirty days notice to remove, by certified mail, to the owner of the sign and to the owner of the land upon which the sign is located, file a petition in the district court of the county where such sign is located to abate any public nuisance where the real property upon which the sign is located is:

a. Not within an advertising area in cases of Class 3 and Class 4 signs, and

b. Within advertising areas where Class 3 or Class 4 signs may be located but not on real property eligible for the erection and maintenance of such signs under these rules.

5.11(5) The Iowa state highway commission shall after thirty days notice to comply or have removed, by certified mail, to the owner of the sign and to the owner of the land upon which the sign is located and where the landowner or the sign owner fails to comply with such notice within the required thirty days, file a petition in the district court of the coun-

ty where such sign is located to abate any public nuisance where the real property upon which the sign is located is within advertising areas in case of Class 3 and Class 4 signs, or either within or without advertising areas in case of Class 2 signs more than fifty feet from the advertised activity, on real property eligible for the erection of such signs and the sign does not comply with these rules.

[Filed May 18, 1966; amended
November 22, 1967]

**MANUAL ON UNIFORM
TRAFFIC CONTROL DEVICES
FOR STREETS AND HIGHWAYS**

The manual filed dated January 9, 1963 shall constitute the manual and specifications for a uniform system of traffic control devices for use upon the highways of this state.

[Filed March 11, 1965]

Editor's Note: For information in regard to the manual, address the State Highway Commission offices at Ames, Iowa.

INDUSTRIAL COMMISSIONER

CHAPTER 1

WORKMEN'S COMPENSATION SERVICE

1.1(86) Injury and settlement reports. The following blanks shall be prepared and distributed by the industrial commissioner for the computation, adjustment and settlement of noncontroverted workmen's compensation claims.

This rule is intended to implement section 86.8(2).

1.1(1) Form No. 1. First report of injury. Under section 86.11, of the Code, employers are required to file this form with the industrial commissioner within forty-eight hours after having notice or knowledge of an injury which temporarily disables an employee for more than seven days, or results in permanent disability, or death.

State of Iowa

STANDARD FORM FOR WORKMEN'S COMPENSATION SERVICE

EMPLOYER'S FIRST REPORT OF INJURY

Employers are required to file this report with the Iowa Industrial Commissioner, State Office Bldg., Des Moines, Iowa, when an injury temporarily disables an employee for more than seven days, or results in permanent disability, or death. Heads of all state departments must report all injuries if any medical or hospital expense is involved.

Employers are also required to report injuries resulting in disability of two days or more to the State Bureau of Labor, and should report all injuries to their insurance carrier.

EMPLOYER	1. Name of Employer _____ 2. Address: No. and st. _____ city or town _____ 3. Nature of business _____ 4. Insured by _____ 5. Address _____
TIME AND PLACE	6. Location of place where injury occurred _____ 7. Date of injury _____ 19____ Hour of injury _____ A.M. _____ P.M. 8. Date disability began _____ Was injured paid in full for this day? _____ 9. When did employer or foreman first know of injury? _____
INJURED EMPLOYEE	10. Name of injured _____ 11. Address: No. and St. _____ city or town _____ 12. Check (✓) Married _____ Single _____ Male _____ Female _____ Age _____ 13. Children under 16, or incapacitated regardless of age _____ 14. Job classification _____ How long employed by you? _____ 15. No. hours worked per day _____ Wages per hour \$ _____ 16. No. of days worked per week _____ Wages per day \$ _____ 17. Additional amount employee received in room, board, tips, laundry, \$ _____
THE INJURY	18. Machine, tool, or thing causing injury _____ 19. Was injury caused by failure of injured to use or observe safety appliance or regulation? _____ 20. Describe how injury occurred: _____ _____ _____ 21. Nature and extent of injury _____ _____ _____ 22. Has injured returned to work? _____ If so, date and hour _____ 23. If not, probable length of disability _____ 24. Name and address of physician _____ 25. Name and address of hospital _____ 26. Names and addresses of witnesses _____ _____
FATAL CASES	27. Has injured died? _____ If so, give date of death _____ 28. Name and address of widow or other dependents _____ _____

Do not write in this space

Date of this report _____ Firm name _____
 Signed by _____
 Official Title _____

1.1(2) *Form No. 2. Surgeon's report.* This report, or an equivalent report in letter form, must be filed with the industrial commissioner in support of an application for commutation and application for compromise settlement, and in other cases when requested.

Form No. 2

STANDARD FORM FOR
SURGEON'S REPORT

Approved by I. A. I. A. B. C.

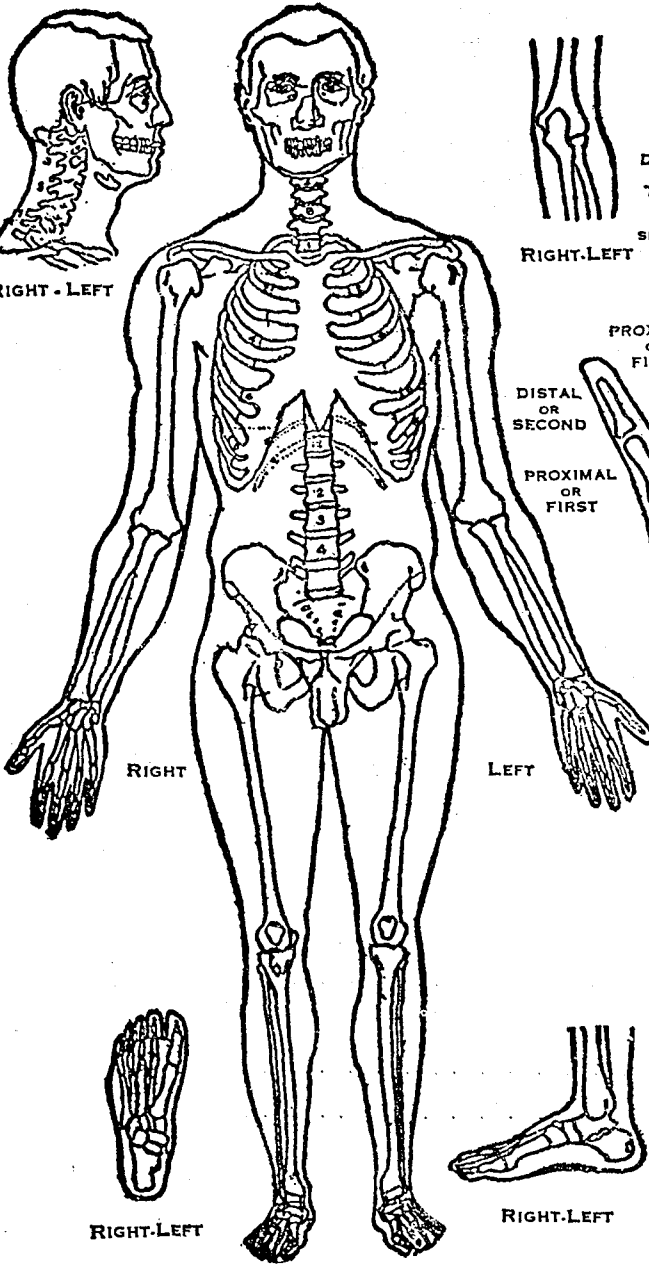
The Patient	1. Name of Injured Person: Age:..... Sex: 2. Address: No. and St. City or Town ... State 3. Name and address of Employer:
The Injury	4. Date of injury: Hour M. Date disability began 5. State in patient's own words where and how injury occurred 6. Give accurate description of nature and extent of injury and your objective findings: 7. Will the injury result in (a) Permanent defect? If so, what? (b) Facial or head disfigurement? (Permanent disability such as loss of whole or parts of fingers, facial or head disfigurement, etc., must be accurately marked on the chart on reverse side of this report.) 8. Is injury, above referred to the only cause of patient's condition? If not, state contributing causes: ... 9. Is patient suffering from any disease of the heart, lungs, brain, kidneys, blood, vascular system or any other disabling condition not due to this injury? Give particulars 10. Has patient any physical impairment due to previous injury or disease?..... Give particulars 11. Has normal recovery been delayed for any reason? Give particulars:
Treatment	12. Date of your first treatment: Who engaged your services? 13. Describe treatment given by you 14. Were X-Rays taken? By whom? When? (Name and Address) 15. X-Ray diagnosis: (Name and Address) 16. Was patient treated by anyone else? By whom? When 17. Was patient hospitalized? Name and address of hospital 18. Date of admission to hospital Date of discharge 19. Is further treatment needed? For how long?
Disability	20. Patient ^{will be} _{was} able to resume work on: 21. Patient ^{will be} _{was} able to resume light work on: 22. If death ensued give date:
REMARKS: (Give any information not included above) I am a duly licensed physician in the state of I was graduated from Medical School in Year Date of this report: (Signed)..... This report must be signed personally by physician. Address: Telephone	

(Note. Mark affected parts on chart, reverse side.)

(Over)



RIGHT - LEFT

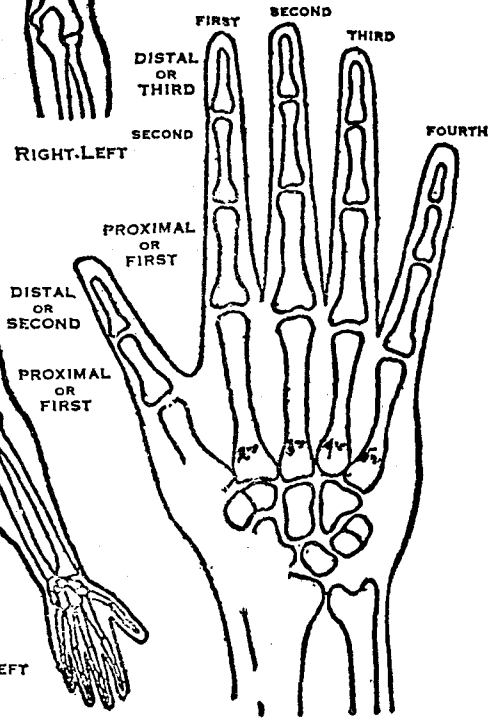


RIGHT

LEFT



RIGHT-LEFT



DISTAL OR THIRD

FIRST

SECOND

THIRD

FOURTH

PROXIMAL OR FIRST

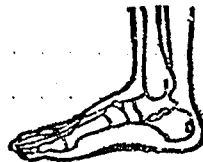
DISTAL OR SECOND

PROXIMAL OR FIRST

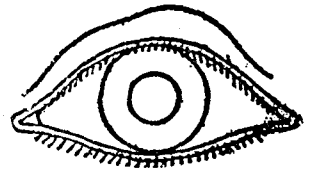
RIGHT - LEFT



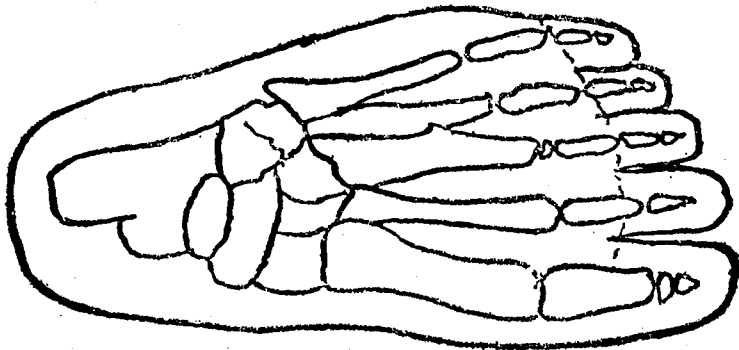
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RIGHT-LEFT



RIGHT-LEFT



1.1(3) Form No. 4. Memorandum of agreement. Under section 86.13 of the Code, the employer or insurance carrier is required to file this form within thirty days after the payment of weekly compensation is begun. It is not necessary for the employee to sign the memorandum of agreement.

IOWA MEMORANDUM OF AGREEMENT
as to Compensation

This memorandum to be filed by the employer or insurer with the Industrial Commissioner upon the first payment of weekly compensation.

EMPLOYEE ADDRESS
EMPLOYER ADDRESS
INSURANCE CARRIER ADDRESS

Date of injury Date disability began If fatal, date of death

If temporary disability, probable duration thereof

Nature of injury

Cause and place of injury

Has employee lost or lost the use of hand, arm, foot, leg, or eye not caused by this accident? Yes No

If so, state nature and extent of previous disability

Number of dependent children under 16 years or incapacitated

Name of dependent payee in death case

Employee's actual average daily earnings for the number of hours commonly regarded as a day's work for employment

Temporary disability and healing period weekly rate
Permanent partial disability and permanent total disability weekly rate
Death benefit weekly rate
Disfigurement (face or head) weekly rate

Weekly rates computed as follows: The actual daily wage x 300 + 52 x 66 2/3%, which rates are shown immediately above and which the undersigned agrees to pay in accordance with the requirements of the Iowa Workmen's Compensation Act.

APPROVED SIGNED
DEPUTY INDUSTRIAL COMMISSIONER EMPLOYER
DATE INSURANCE CARRIER
By
Date

1.1(4) Form No. 5. Employer's receipt. This report is to be signed by the employee when compensation is terminated or interrupted, and is to be filed with the industrial commissioner by the employer or insurance carrier, as the closing supplement to Form No. 4.

Revised Iowa Form (No. 6)

EMPLOYERS REPORT OF WORKMEN'S COMPENSATION BENEFIT PAYMENTS MADE IN THIS CASE AND EMPLOYEE'S RECEIPT FOR PAYMENTS MADE

(This form must be submitted to the Department when medical and/or weekly benefits are terminated or interrupted.)

NAME OF EMPLOYEE ADDRESS
NAME OF EMPLOYER ADDRESS
NAME OF INS. CARRIER ADDRESS

Table with columns: Basis of Settlement and Payments Made (IF SELF-INSURED MAKE OUT AND SIGN AS EMPLOYER OTHERWISE AS INSURANCE CARRIER), AMOUNT PAID. Rows include: Date of Injury, Disability Began, Disability Ended, Period Disabled from Work, Date of First Compensation Draft, Date of Last Compensation Draft, Memo. Agreement Filed, Signed, By (EMPLOYER OR INSURANCE CARRIER). Sub-sections: WEEKLY COMPENSATION PAID, PERMANENT PARTIAL DISABILITY, PERMANENT TOTAL DISABILITY, MEDICAL, HOSPITAL, OTHER EXPENSE, BURIAL, TOTAL.

Employee's Receipt (THIS IS NOT A RELEASE)

RECEIVED DOLLARS (\$)

Which with \$ heretofore paid making \$ represents the payments made on a claim for workmen's compensation benefits on account of injuries sustained by the above named employee

Witness my hand this day of , 19 .

In the presence of (Name of Witness)

(SIGNATURE OF INJURED BENEFICIARY)
(STREET AND NUMBER)
(CITY) (STATE)

1.1(5) Form No. 9. Application for commutation.

APPLICATION FOR ADDITIONAL BENEFITS FOR REHABILITATION TRAINING

Section 85.70, Code

"An employee who has sustained an injury resulting in permanent partial or permanent total disability, for which compensation is payable under this chapter, and who cannot return to gainful employment because of such disability, shall upon application to and approval by the Industrial Commissioner be entitled to a twenty dollar weekly payment from the employer in addition to any other benefit payments, during each full week in which he is actively participating in a vocational rehabilitation program recognized by the state board for vocational education. The Industrial Commissioner's approval of such application for payment may be given only after a careful evaluation of available facts, and after consultation with the employer or the employer's representative. An appeal of the decision of the Industrial Commissioner may be taken to the district court as described in Section 86.26 of the Code. Such additional benefit payment shall be paid for a period not to exceed 13 consecutive weeks except that the Industrial Commissioner may extend the period of payment not to exceed an additional thirteen weeks if the circumstances indicate that a continuation of training will in fact accomplish rehabilitation."

INSTRUCTIONS:

1. Fill out an original and 3 copies, each of which are to be signed by the employee, employer or the employer's representative, the Industrial Commissioner and a representative of D.R.E.S.

The undersigned employee states that he has sustained an injury, for which compensation is payable under this chapter, resulting in permanent partial or permanent total disability that prevents him from returning to gainful employment without additional training and applies for additional compensation of \$20.00 per week for _____ weeks beginning _____, 19____, while in training at _____ with the goal of _____.

Date _____ Signed X _____
EMPLOYEE

I.C.B./D.P.I. REPRESENTATIVE

EMPLOYER OR HIS REPRESENTATIVE

INDUSTRIAL COMMISSIONER

Orig. to: Industrial Commissioner
cc to: Claimant
Rehab. Agency or D.P.I.
Employer or representative

STATE OF IOWA

BEFORE THE IOWA INDUSTRIAL COMMISSIONER

_____	VS.	Claimant

_____		Employer

_____		Insurance Carrier

APPLICATION
FOR
COMMUTATION
AND
ORDER FOR LUMP SUM
PAYMENT

To the Iowa Industrial Commissioner:

The undersigned hereby makes Application for Commutation of compensation unpaid in the above entitled case and respectfully represents:

Person injured _____ Date of injury _____, 19____

Healing Period _____ wks. at \$ _____ Total _____

Compensation to which entitled:

Permanent Partial _____ wks. at \$ _____ Total _____

Healing period _____ to _____, 19____

Compensation already rec'd:

Permanent or death _____ to _____, 19____

Present worth of commuted compensation on statutory basis of 5% discount is—

Full Commutation—for all remaining period _____ weeks, \$ _____

Partial Commutation—for first part of remaining period _____ weeks, \$ _____

Partial Commutation—for last part of period _____ weeks, \$ _____

In support of this plea the following is submitted:

This application is signed with the distinct understanding that commuted settlement by lump sum payment in full of all installments to become due erects a legal bar against any further recovery whatever on account of the injury or death recited herein.

Attorney for Claimant

Claimant

VERIFICATION

STATE OF IOWA

County

SS:

The undersigned on oath deposes and says that I am the above named claimant, and have read the foregoing application and that the same is true as I verily believe.

Subscribed and sworn to before me this _____ day of _____, 19____, and I certify that I have advised the claimant herein that if the order prayed for is approved and an order made, he will be barred from any additional compensation benefits.

Notary Public

Service of notice of application for lump sum settlement on the part of claimant in the above entitled case is hereby accepted, and consent given that the merits of the application may be determined, passed upon and decided by the Iowa Industrial Commissioner within the contemplation of the law.

Dated this _____ day of _____, 19____

Employer

Insurance Carrier

I find the foregoing application for commutation appears to be in order and hereby approve the same.

_____, 19____
IOWA INDUSTRIAL COMMISSIONER

1.1(6) Form No. 10. Notice of election to provide, secure and pay compensation by persons engaged in agricultural pursuits, as provided by section 85.1(3) of the Code.

NOTICE OF ELECTION

**TO PROVIDE, SECURE AND PAY WORKMEN'S COMPENSATION
(Pursuant to Section 85.1, Code of Iowa 1971)**

To the Industrial Commissioner of Iowa:

The undersigned, an employer of:
(Check applicable category)

- Household or Domestic Servants
- Persons whose employment is of a casual nature
- Persons engaged in agriculture
- Persons not in the course of the employer's business

hereby voluntarily elects to provide, secure and pay workmen's compensation to all of his employees within the category designated above in accordance with the provisions of the Iowa Workmen's Compensation Law, as set forth in Chapter 85, Code of Iowa 1971 and amendments thereof, and hereby gives notice to the Commissioner of that election.

Dated this _____ day of _____ 19_____

Name of Employer

Address of Employer

Firm Name

Firm Address

Signed By

Official Title

1.1(7) Form No. 12. Waiver on account of physical defect, as provided by section 85.55 of the Code.

Form No. 12
IAC-3-63
PB 11413

WORKMEN'S COMPENSATION SERVICE
(Ink or Typewriter to Be Used in Filling Out All Forms)
WAIVER ON ACCOUNT OF PHYSICAL DEFECT
(To be mailed to the Industrial Commissioner in triplicate for approval and filing)

Sections 85.55 of the Iowa Workmen's Compensation Law as amended provides as follows:

"No employee or dependent to whom this chapter applies shall have power to waive any of the provisions of this chapter in regard to the amount of compensation which may be payable to such employee or dependent hereunder. However, any person who has some physical defect which increases the risk of injury, may, subject to the approval of the Industrial Commissioner, enter into a written agreement with his employer waiving compensation for injuries which may occur directly or indirectly because of such physical defect, provided, however, that such waiver shall not affect the employees's benefits to be paid from the second injury fund under the provisions of section 85.64."

This is to certify that the undersigned, a practicing physician for _____ years, having an office in _____ has examined _____ on _____, 19____, and finds that he has the following physical defect:

and is able to perform such work as:

without undue hazard to his health or life.

_____, M. D.
I, _____, of _____, aged _____ years, in accordance with the terms of the aforesaid section, hereby waive compensation on behalf of myself, and in case of death resulting therefrom, for my dependents, for any injury sustained by me while in the employ of _____ of _____ which may occur directly or indirectly because of such aforesaid physical defect.

Dated at _____, 19____

Witnesses to Employee's Signature:

Employee's Signature
No. _____ Street

Concurring parent or guardian if employee be a minor:

Parent Guardian
The undersigned employer agrees to this waiver and that the above employee will not be requested or required to do work of a more strenuous or hazardous nature than that suggested or recommended by the above named doctor, dated this _____ day of _____, 19____

Employer

I find the foregoing waiver appears to be in order and hereby approve the same.

_____, 19____
IOWA INDUSTRIAL COMMISSIONER

Submitted by: _____
NAME ADDRESS

1.2(84, 86) Compromise settlements. All agreements providing for the final compromise settlement of a case where liability under the workmen's compensation Act is disputed shall be reduced to writing and submitted to the industrial commissioner for approval, together with such testimony or other evidence as he may require to establish that a bona fide dispute exists and liability is doubtful. Any such settlement, when approved by the industrial commissioner shall be binding upon the parties thereto and not subject to review under section 86.34 of the Code.

This rule is intended to implement section 85.22, subsection 3, and section 86.14.

1.3(85) Commutation. In all proceedings where commutation may be approved by the industrial commissioner as provided in sections 85.45-85.48, a First Report of Injury and an approved Memorandum of Agreement or award of compensation must be filed. All doctors' reports relating to the extent of disability shall be submitted to the industrial commissioner with the Application for Commutation,

together with such testimony or other evidence as the industrial commissioner may require to establish the required conditions. Only the unaccrued weekly benefits will be computed and benefits will be considered as running from the first day of disability after the injury, less any periods when the employee was not disabled. Unless the employee is represented by a lawyer, or unless a hearing is held before the industrial commissioner, a full commutation entitling the employer to a release will not be ordered for a permanent injury to the body as a whole. In death cases, commutation will be ordered only where benefits are equitably apportioned among the widow and any minor dependents.

This rule is intended to implement sections 85.45-85.48.

1.4(85) Rate computation. The weekly Compensation Rate Table in the "Iowa Workmen's Compensation Law" published by the industrial commissioner is authorized for use under sections 85.36 and 85.37 of the Code.

This rule is intended to implement sections 85.36 and 85.37.

Actual Daily Earnings	Weekly Compensation Rate	Actual Daily Earnings	Weekly Compensation Rate	Actual Daily Earnings	Weekly Compensation Rate	Actual Daily Earnings	Weekly Compensation Rate
\$4.68	\$18.00	\$5.05	\$19.42	\$5.42	\$20.85	\$5.79	\$22.27
4.69	18.04	5.06	19.46	5.43	20.88	5.80	22.31
4.70	18.08	5.07	19.50	5.44	20.92	5.81	22.35
4.71	18.12	5.08	19.54	5.45	20.96	5.82	22.38
4.72	18.15	5.09	19.58	5.46	21.00	5.83	22.42
4.73	18.19	5.10	19.62	5.47	21.04	5.84	22.46
4.74	18.23	5.11	19.65	5.48	21.08	5.85	22.50
4.75	18.27	5.12	19.69	5.49	21.12	5.86	22.54
4.76	18.31	5.13	19.73	5.50	21.15	5.87	22.58
4.77	18.35	5.14	19.77	5.51	21.19	5.88	22.62
4.78	18.38	5.15	19.81	5.52	21.23	5.89	22.65
4.79	18.42	5.16	19.85	5.53	21.27	5.90	22.69
4.80	18.46	5.17	19.88	5.54	21.31	5.91	22.73
4.81	18.50	5.18	19.92	5.55	21.35	5.92	22.77
4.82	18.54	5.19	19.96	5.56	21.38	5.93	22.81
4.83	18.58	5.20	20.00	5.57	21.42	5.94	22.85
4.84	18.62	5.21	20.04	5.58	21.46	5.95	22.88
4.85	18.65	5.22	20.08	5.59	21.50	5.96	22.92
4.86	18.69	5.23	20.12	5.60	21.54	5.97	22.96
4.87	18.73	5.24	20.15	5.61	21.58	5.98	23.00
4.88	18.77	5.25	20.19	5.62	21.62	5.99	23.04
4.89	18.81	5.26	20.23	5.63	21.65	6.00	23.08
4.90	18.85	5.27	20.27	5.64	21.69	6.01	23.12
4.91	18.88	5.28	20.31	5.65	21.73	6.02	23.15
4.92	18.92	5.29	20.35	5.66	21.77	6.03	23.19
4.93	18.96	5.30	20.38	5.67	21.81	6.04	23.23
4.94	19.00	5.31	20.42	5.68	21.85	6.05	23.27
4.95	19.04	5.32	20.46	5.69	21.88	6.06	23.31
4.96	19.08	5.33	20.50	5.70	21.92	6.07	23.35
4.97	19.12	5.34	20.54	5.71	21.96	6.08	23.38
4.98	19.15	5.35	20.58	5.72	22.00	6.09	23.42
4.99	19.19	5.36	20.62	5.73	22.04	6.10	23.46
5.00	19.23	5.37	20.65	5.74	22.08	6.11	23.50
5.01	19.27	5.38	20.69	5.75	22.12	6.12	23.54
5.02	19.31	5.39	20.73	5.76	22.15	6.13	23.58
5.03	19.35	5.40	20.77	5.77	22.19	6.14	23.62
5.04	19.38	5.41	20.81	5.78	22.23	6.15	23.65

Actual Daily Earnings	Weekly Compensation Rate	Actual Daily Earnings	Weekly Compensation Rate	Actual Daily Earnings	Weekly Compensation Rate	Actual Daily Earnings	Weekly Compensation Rate
\$6.16	\$23.69	\$6.80	\$26.15	\$7.44	\$28.62	\$8.08	\$31.08
6.17	23.73	6.81	26.19	7.45	28.65	8.09	31.12
6.18	23.77	6.82	26.23	7.46	28.69	8.10	31.15
6.19	23.81	6.83	26.27	7.47	28.73	8.11	31.19
6.20	23.85	6.84	26.31	7.48	28.77	8.12	31.23
6.21	23.88	6.85	26.35	7.49	28.81	8.13	31.27
6.22	23.92	6.86	26.38	7.50	28.85	8.14	31.31
6.23	23.96	6.87	26.42	7.51	28.88	8.15	31.35
6.24	24.00	6.88	26.46	7.52	28.92	8.16	31.38
6.25	24.04	6.89	26.50	7.53	28.96	8.17	31.42
6.26	24.08	6.90	26.54	7.54	29.00	8.18	31.46
6.27	24.12	6.91	26.58	7.55	29.04	8.19	31.50
6.28	24.15	6.92	26.62	7.56	29.08	8.20	31.54
6.29	24.19	6.93	26.65	7.57	29.12	8.21	31.58
6.30	24.23	6.94	26.69	7.58	29.15	8.22	31.62
6.31	24.27	6.95	26.73	7.59	29.19	8.23	31.65
6.32	24.31	6.96	26.77	7.60	29.23	8.24	31.69
6.33	24.35	6.97	26.81	7.61	29.27	8.25	31.73
6.34	24.38	6.98	26.85	7.62	29.31	8.26	31.77
6.35	24.42	6.99	26.88	7.63	29.35	8.27	31.81
6.36	24.46	7.00	26.92	7.64	29.38	8.28	31.85
6.37	24.50	7.01	26.96	7.65	29.42	8.29	31.88
6.38	24.54	7.02	27.00	7.66	29.46	8.30	31.92
6.39	24.58	7.03	27.04	7.67	29.50	8.31	31.96
6.40	24.62	7.04	27.08	7.68	29.54	8.32	32.00
6.41	24.65	7.05	27.12	7.69	29.58	8.33	32.04
6.42	24.69	7.06	27.15	7.70	29.62	8.34	32.08
6.43	24.73	7.07	27.19	7.71	29.65	8.35	32.11
6.44	24.77	7.08	27.23	7.72	29.69	8.36	32.15
6.45	24.81	7.09	27.27	7.73	29.73	8.37	32.19
6.46	24.85	7.10	27.31	7.74	29.77	8.38	32.23
6.47	24.88	7.11	27.35	7.75	29.81	8.39	32.27
6.48	24.92	7.12	27.38	7.76	29.85	8.40	32.31
6.49	24.96	7.13	27.42	7.77	29.88	8.41	32.34
6.50	25.00	7.14	27.46	7.78	29.92	8.42	32.38
6.51	25.04	7.15	27.50	7.79	29.96	8.43	32.42
6.52	25.08	7.16	27.54	7.80	30.00	8.44	32.46
6.53	25.12	7.17	27.58	7.81	30.04	8.45	32.50
6.54	25.15	7.18	27.62	7.82	30.08	8.46	32.54
6.55	25.19	7.19	27.65	7.83	30.12	8.47	32.58
6.56	25.23	7.20	27.69	7.84	30.15	8.48	32.61
6.57	25.27	7.21	27.73	7.85	30.19	8.49	32.65
6.58	25.31	7.22	27.77	7.86	30.23	8.50	32.69
6.59	25.35	7.23	27.81	7.87	30.27	8.51	32.73
6.60	25.38	7.24	27.85	7.88	30.31	8.52	32.77
6.61	25.42	7.25	27.88	7.89	30.35	8.53	32.81
6.62	25.46	7.26	27.92	7.90	30.38	8.54	32.84
6.63	25.50	7.27	27.96	7.91	30.42	8.55	32.88
6.64	25.54	7.28	28.00	7.92	30.46	8.56	32.92
6.65	25.58	7.29	28.04	7.93	30.50	8.57	32.96
6.66	25.62	7.30	28.08	7.94	30.54	8.58	33.00
6.67	25.65	7.31	28.12	7.95	30.58	8.59	33.04
6.68	25.69	7.32	28.15	7.96	30.62	8.60	33.08
6.69	25.73	7.33	28.19	7.97	30.65	8.61	33.11
6.70	25.77	7.34	28.23	7.98	30.69	8.62	33.15
6.71	25.81	7.35	28.27	7.99	30.73	8.63	33.19
6.72	25.85	7.36	28.31	8.00	30.77	8.64	33.23
6.73	25.88	7.37	28.35	8.01	30.81	8.65	33.27
6.74	25.92	7.38	28.38	8.02	30.85	8.66	33.31
6.75	25.96	7.39	28.42	8.03	30.88	8.67	33.34
6.76	26.00	7.40	28.46	8.04	30.92	8.68	33.38
6.77	26.04	7.41	28.50	8.05	30.96	8.69	33.42
6.78	26.08	7.42	28.54	8.06	31.00	8.70	33.46
6.79	26.12	7.43	28.58	8.07	31.04	8.71	33.50

Actual Daily Earnings	Weekly Compensation Rate	Actual Daily Earnings	Weekly Compensation Rate	Actual Daily Earnings	Weekly Compensation Rate	Actual Daily Earnings	Weekly Compensation Rate
\$8.72	\$33.54	\$9.36	\$36.00	\$10.00	\$38.46	\$10.64	\$40.92
8.73	33.58	9.37	36.04	10.01	38.50	10.65	40.96
8.74	33.61	9.38	36.08	10.02	38.54	10.66	41.00
8.75	33.65	9.39	36.11	10.03	38.58	10.67	41.04
8.76	33.69	9.40	36.15	10.04	38.61	10.68	41.08
8.77	33.73	9.41	36.19	10.05	38.65	10.69	41.11
8.78	33.77	9.42	36.23	10.06	38.69	10.70	41.15
8.79	33.81	9.43	36.27	10.07	38.73	10.71	41.19
8.80	33.84	9.44	36.31	10.08	38.77	10.72	41.23
8.81	33.88	9.45	36.34	10.09	38.81	10.73	41.27
8.82	33.92	9.46	36.38	10.10	38.84	10.74	41.31
8.83	33.96	9.47	36.42	10.11	38.88	10.75	41.34
8.84	34.00	9.48	36.46	10.12	38.92	10.76	41.38
8.85	34.04	9.49	36.50	10.13	38.96	10.77	41.42
8.86	34.08	9.50	36.54	10.14	39.00	10.78	41.46
8.87	34.11	9.51	36.58	10.15	39.04	10.79	41.50
8.88	34.15	9.52	36.61	10.16	39.08	10.80	41.54
8.89	34.19	9.53	36.65	10.17	39.11	10.81	41.58
8.90	34.23	9.54	36.69	10.18	39.15	10.82	41.61
8.91	34.27	9.55	36.73	10.19	39.19	10.83	41.65
8.92	34.31	9.56	36.77	10.20	39.23	10.84	41.69
8.93	34.34	9.57	36.81	10.21	39.27	10.85	41.73
8.94	34.38	9.58	36.84	10.22	39.31	10.86	41.77
8.95	34.42	9.59	36.88	10.23	39.34	10.87	41.81
8.96	34.46	9.60	36.92	10.24	39.38	10.88	41.84
8.97	34.50	9.61	36.96	10.25	39.42	10.89	41.88
8.98	34.54	9.62	37.00	10.26	39.46	10.90	41.92
8.99	34.58	9.63	37.04	10.27	39.50	10.91	41.96
9.00	34.61	9.64	37.08	10.28	39.54	10.92	42.00
9.01	34.65	9.65	37.11	10.29	39.58	10.93	42.04
9.02	34.69	9.66	37.15	10.30	39.61	10.94	42.08
9.03	34.73	9.67	37.19	10.31	39.65	10.95	42.11
9.04	34.77	9.68	37.23	10.32	39.69	10.96	42.15
9.05	34.81	9.69	37.27	10.33	39.73	10.97	42.19
9.06	34.84	9.70	37.31	10.34	39.77	10.98	42.23
9.07	34.88	9.71	37.34	10.35	39.81	10.99	42.27
9.08	34.92	9.72	37.38	10.36	39.84	11.00	42.31
9.09	34.96	9.73	37.42	10.37	39.88	11.01	42.34
9.10	35.00	9.74	37.46	10.38	39.92	11.02	42.38
9.11	35.04	9.75	37.50	10.39	39.96	11.03	42.42
9.12	35.08	9.76	37.54	10.40	40.00	11.04	42.46
9.13	35.11	9.77	37.58	10.41	40.04	11.05	42.50
9.14	35.15	9.78	37.61	10.42	40.08	11.06	42.54
9.15	35.19	9.79	37.65	10.43	40.11	11.07	42.58
9.16	35.23	9.80	37.69	10.44	40.15	11.08	42.61
9.17	35.27	9.81	37.73	10.45	40.19	11.09	42.65
9.18	35.31	9.82	37.77	10.46	40.23	11.10	42.69
9.19	35.34	9.83	37.81	10.47	40.27	11.11	42.73
9.20	35.38	9.84	37.84	10.48	40.31	11.12	42.77
9.21	35.42	9.85	37.88	10.49	40.34	11.13	42.81
9.22	35.46	9.86	37.92	10.50	40.38	11.14	42.84
9.23	35.50	9.87	37.96	10.51	40.42	11.15	42.88
9.24	35.54	9.88	38.00	10.52	40.46	11.16	42.92
9.25	35.58	9.89	38.04	10.53	40.50	11.17	42.96
9.26	35.61	9.90	38.08	10.54	40.54	11.18	43.00
9.27	35.65	9.91	38.11	10.55	40.58	11.19	43.04
9.28	35.69	9.92	38.15	10.56	40.61	11.20	43.08
9.29	35.73	9.93	38.19	10.57	40.65	11.21	43.11
9.30	35.77	9.94	38.23	10.58	40.69	11.22	43.15
9.31	35.81	9.95	38.27	10.59	40.73	11.23	43.19
9.32	35.84	9.96	38.31	10.60	40.77	11.24	43.23
9.33	35.88	9.97	38.34	10.61	40.81	11.25	43.27
9.34	35.92	9.98	38.38	10.62	40.84	11.26	43.31
9.35	35.96	9.99	38.42	10.63	40.88	11.27	43.34

Actual Daily Earnings	Weekly Compensation Rate	Actual Daily Earnings	Weekly Compensation Rate	Actual Daily Earnings	Weekly Compensation Rate	Actual Daily Earnings	Weekly Compensation Rate
\$11.28	\$43.38	\$11.72	\$45.08	\$12.15	\$46.73	\$12.58	\$48.38
11.29	43.42	11.73	45.11	12.16	46.77	12.59	48.42
11.30	43.46	11.74	45.15	12.17	46.81	12.60	48.46
11.31	43.50	11.75	45.19	12.18	46.84	12.61	48.50
11.32	43.54	11.76	45.23	12.19	46.88	12.62	48.54
11.33	43.58	11.77	45.27	12.20	46.92	12.63	48.58
11.34	43.61	11.78	45.31	12.21	46.96	12.64	48.61
11.35	43.65	11.79	45.34	12.22	47.00	12.65	48.65
11.36	43.69	11.80	45.38	12.23	47.04	12.66	48.69
11.37	43.73	11.81	45.42	12.24	47.08	12.67	48.73
11.38	43.77	11.82	45.46	12.25	47.11	12.68	48.77
11.39	43.81	11.83	45.50	12.26	47.15	12.69	48.81
11.40	43.84	11.84	45.54	12.27	47.19	12.70	48.84
11.41	43.88	11.85	45.58	12.28	47.23	12.71	48.88
11.42	43.92	11.86	45.61	12.29	47.27	12.72	48.92
11.43	43.96	11.87	45.65	12.30	47.31	12.73	48.96
11.44	44.00	11.88	45.69	12.31	47.34	12.74	49.00
11.45	44.04	11.89	45.73	12.32	47.38	12.75	49.04
11.46	44.08	11.90	45.77	12.33	47.42	12.76	49.08
11.47	44.11	11.91	45.81	12.34	47.46	12.77	49.11
11.48	44.15	11.92	45.84	12.35	47.50	12.78	49.15
11.49	44.19	11.93	45.88	12.36	47.54	12.79	49.19
11.50	44.23	11.94	45.92	12.37	47.58	12.80	49.23
11.51	44.27	11.95	45.96	12.38	47.61	12.81	49.27
11.52	44.31	11.96	46.00	12.39	47.65	12.82	49.31
11.53	44.34	11.97	46.04	12.40	47.69	12.83	49.34
11.54	44.38	11.98	46.08	12.41	47.73	12.84	49.38
11.55	44.42	11.99	46.11	12.42	47.77	12.85	49.42
11.56	44.46	12.00	46.15	12.43	47.81	12.86	49.46
11.57	44.50	12.01	46.19	12.44	47.84	12.87	49.50
11.58	44.54	12.02	46.23	12.45	47.88	12.88	49.54
11.59	44.58	12.03	46.27	12.46	47.92	12.89	49.58
11.60	44.61	12.04	46.31	12.47	47.96	12.90	49.61
11.61	44.65	12.05	46.34	12.48	48.00	12.91	49.65
11.62	44.69	12.06	46.38	12.49	48.04	12.92	49.69
11.63	44.73	12.07	46.42	12.50	48.08	12.93	49.73
11.64	44.77	12.08	46.46	12.51	48.11	12.94	49.77
11.65	44.81	12.09	46.50	12.52	48.15	12.95	49.81
11.66	44.84	12.10	46.54	12.53	48.19	12.96	49.84
11.67	44.88	12.11	46.58	12.54	48.23	12.97	49.88
11.68	44.92	12.12	46.61	12.55	48.27	12.98	49.92
11.69	44.96	12.13	46.65	12.56	48.31	12.99	49.96
11.70	45.00	12.14	46.69	12.57	48.34	13.00	50.00
11.71	45.04						

1.5(85) Commutation table. The commutation table in the Iowa workmen's compensation law published by the industrial commissioner is authorized for use under section 85.47 of the Code.

This rule is intended to implement sections 85.45-85.48.

This table shows the present value of any number of One Dollar future weekly payments discounted at five per centum, as authorized by section 85.47, Code of 1962, for commuted lump sum settlements in advance of the dates due. For weekly payments of larger amounts multiply the tabular fraction by the number of dollars in the weekly payments.

COMMUTATION TABLE—IOWA

One Dollar Payments—First 52 Weeks				One Dollar Payments—Third 52 Weeks			
Weeks	Value	Weeks	Value	Weeks	Value	Weeks	Value
1	\$ 0.999	27	\$26.644	105	\$ 99.998	131	\$123.346
2	1.997	28	27.617	106	100.906	132	124.233
3	2.994	29	28.590	107	101.812	133	125.120
4	3.990	30	29.562	108	102.719	134	126.006
5	4.986	31	30.534	109	103.624	135	126.892
6	5.980	32	31.504	110	104.529	136	127.776
7	6.973	33	32.473	111	105.432	137	128.660
8	7.966	34	33.442	112	106.335	138	129.543
9	8.957	35	34.409	113	107.238	139	130.426
10	9.948	36	35.376	114	108.139	140	131.307
11	10.937	37	36.341	115	109.040	141	132.188
12	11.926	38	37.306	116	109.940	142	133.068
13	12.913	39	38.270	117	110.839	143	133.948
14	13.900	40	39.233	118	111.737	144	134.826
15	14.886	41	40.195	119	112.635	145	135.704
16	15.871	42	41.157	120	113.531	146	136.582
17	16.855	43	42.117	121	114.427	147	137.458
18	17.838	44	43.077	122	115.323	148	138.334
19	18.820	45	44.035	123	116.217	149	139.209
20	19.801	46	44.993	124	117.111	150	140.083
21	20.781	47	45.950	125	118.004	151	140.956
22	21.761	48	46.906	126	118.896	152	141.829
23	22.739	49	47.861	127	119.788	153	142.701
24	23.717	50	48.815	128	120.678	154	143.573
25	24.693	51	49.769	129	121.568	155	144.443
26	25.669	52	50.721	130	122.457	156	145.313
One Dollar Payments—Second 52 Weeks				One Dollar Payments—Fourth 52 Weeks			
53	\$51.673	79	\$76.115	157	\$146.182	183	\$168.529
54	52.623	80	77.044	158	147.051	184	169.379
55	53.573	81	77.972	159	147.918	185	170.229
56	54.522	82	78.899	160	148.785	186	171.077
57	55.471	83	79.825	161	149.652	187	171.925
58	56.418	84	80.751	162	150.517	188	172.773
59	57.364	85	81.675	163	151.382	189	173.619
60	58.310	86	82.599	164	152.246	190	174.465
61	59.255	87	83.522	165	153.109	191	175.310
62	60.199	88	84.444	166	153.972	192	176.155
63	61.142	89	85.366	167	154.834	193	176.999
64	62.084	90	86.286	168	155.695	194	177.842
65	63.025	91	87.206	169	156.556	195	178.684
66	63.966	92	88.125	170	157.416	196	179.526
67	64.905	93	89.043	171	158.275	197	180.367
68	65.844	94	89.960	172	159.133	198	181.207
69	66.782	95	90.877	173	159.991	199	182.047
70	67.719	96	91.792	174	160.848	200	182.886
71	68.655	97	92.707	175	161.704	201	183.725
72	69.591	98	93.621	176	162.560	202	184.562
73	70.525	99	94.535	177	163.415	203	185.399
74	71.459	100	95.447	178	164.269	204	186.236
75	72.392	101	96.359	179	165.122	205	187.072
76	73.324	102	97.270	180	165.975	206	187.907
77	74.255	103	98.180	181	166.827	207	188.741
78	75.186	104	99.089	182	167.679	208	189.575

One Dollar Payments—Fifth 52 Weeks

Weeks	Value	Weeks	Value
209	\$190.408	235	\$211.837
210	191.240	236	212.652
211	192.072	237	213.467
212	192.903	238	214.281
213	193.733	239	215.094
214	194.563	240	215.907
215	195.392	241	216.720
216	196.220	242	217.531
217	197.048	243	218.342
218	197.875	244	219.153
219	198.702	245	219.963
220	199.528	246	220.772
221	200.353	247	221.580
222	201.177	248	222.388
223	202.001	249	223.195
224	202.824	250	224.002
225	203.647	251	224.808
226	204.469	252	225.613
227	205.290	253	226.418
228	206.110	254	227.222
229	206.930	255	228.026
230	207.750	256	228.829
231	208.568	257	229.631
232	209.386	258	230.433
233	210.204	259	231.234
234	211.020	260	232.034

One Dollar Payments—Sixth 52 Weeks

261	\$232.834	287	\$253.417
262	233.633	288	254.200
263	234.432	289	254.983
264	235.230	290	255.766
265	236.027	291	256.547
266	236.824	292	257.329
267	237.620	293	258.109
268	238.415	294	258.889
269	239.210	295	259.669
270	240.005	296	260.448
271	240.798	297	261.226
272	241.592	298	262.004
273	242.384	299	262.781
274	243.176	300	263.558
275	243.967	301	264.334
276	244.758	302	265.109
277	245.548	303	265.884
278	246.338	304	266.658
279	247.127	305	267.432
280	247.915	306	268.205
281	248.703	307	268.978
282	249.490	308	269.750
283	250.276	309	270.521
284	251.062	310	271.292
285	251.848	311	272.062
286	252.632	312	272.832

One Dollar Payments—Seventh 52 Weeks

313	\$273.601	321	\$279.734
314	274.370	322	280.498
315	275.138	323	281.261
316	275.905	324	282.024
317	276.672	325	282.787
318	277.438	326	283.549
319	278.204	327	284.310
320	278.969	328	285.071

Weeks	Value	Weeks	Value
329	\$285.831	347	\$299.420
330	286.590	348	300.170
331	287.350	349	300.919
332	288.108	350	301.668
333	288.866	351	302.416
334	289.623	352	303.164
335	290.380	353	303.911
336	291.137	354	304.657
337	291.892	355	305.403
338	292.648	356	306.149
339	293.402	357	306.894
340	294.156	358	307.638
341	294.910	359	308.382
342	295.663	360	309.125
343	296.415	361	309.868
344	297.167	362	310.611
345	297.919	363	311.352
346	298.670	364	312.094

One Dollar Payments—Eighth 52 Weeks

365	\$312.834	391	\$331.911
366	313.575	392	332.638
367	314.314	393	333.364
368	315.053	394	334.090
369	315.792	395	334.815
370	316.530	396	335.540
371	317.268	397	336.264
372	318.005	398	336.988
373	318.741	399	337.711
374	319.477	400	338.434
375	320.213	401	339.1582
376	320.948	402	339.88059
377	321.682	403	340.60186
378	322.416	404	341.32264
379	323.150	405	342.04291
380	323.883	406	342.76269
381	324.615	407	343.48197
382	325.347	408	344.20076
383	326.078	409	344.91905
384	326.809	410	345.63685
385	327.540	411	346.35415
386	328.270	412	347.07096
387	328.999	413	347.78728
388	329.728	414	348.50311
389	330.456	415	349.21844
390	331.184	416	349.93329

One Dollar Payments—Ninth 52 Weeks

417	\$350.64765	434	\$362.71742
418	351.36151	435	363.42307
419	352.07489	436	364.12825
420	352.78778	437	364.83295
421	353.50018	438	365.53717
422	354.21210	439	366.24093
423	354.92353	440	366.94420
424	355.63448	441	367.64700
425	356.34494	442	368.34933
426	357.05492	443	369.05119
427	357.76442	444	369.75257
428	358.47343	445	370.45348
429	359.18196	446	371.15392
430	359.89001	447	371.85389
431	360.59758	448	372.55340
432	361.30467	449	373.25243
433	362.01128	450	373.95099

Weeks	Value	Weeks	Value	Weeks	Value	Weeks	Value
451	.....\$374.64909	460	.....\$380.91102	473	.....\$389.89017	487	.....\$399.47433
452	..... 375.34672	461	..... 381.60448	474	..... 390.57768	488	..... 400.15555
453	..... 376.04388	462	..... 382.29747	475	..... 391.26474	489	..... 400.83633
454	..... 376.74058	463	..... 382.99001	476	..... 391.95134	490	..... 401.51667
455	..... 377.43681	464	..... 383.68208	477	..... 392.63750	491	..... 402.19656
456	..... 378.13258	465	..... 384.37370	478	..... 393.32320	492	..... 402.87601
457	..... 378.82789	466	..... 385.06485	479	..... 394.00846	493	..... 403.55502
458	..... 379.52273	467	..... 385.75555	480	..... 394.69326	494	..... 404.23358
459	..... 380.21711	468	..... 386.44579	481	..... 395.37761	495	..... 404.91171
One Dollar Payments—Final 52 Weeks							
Weeks	Value	Weeks	Value	Weeks	Value	Weeks	Value
469	.....\$387.13558	471	.....\$388.51378	482	..... 396.06512	496	..... 405.58939
470	..... 387.82491	472	..... 389.20220	483	..... 396.74497	497	..... 406.26663
				484	..... 397.42798	498	..... 406.94343
				485	..... 398.11055	499	..... 407.61980
				486	..... 398.79266	500	..... 408.29572

1.6(86) Forms in disputed cases. Form No. 6, Application for Review-Reopening, and Form No. 8, Application for Arbitration, as published by the industrial commissioner, or a drafted equivalent thereof, shall be used in disputes arising under sections 86.14 and 86.34 of the Code.

This rule is intended to implement section 86.8, subsection 2, sections 86.14, 86.34 and 86.35.

STATE OF IOWA

WORKMEN'S COMPENSATION SERVICE

	Claimant
Address _____	v.
	Employer
Address _____	
	Insurance Carrier

APPLICATION for REVIEW-REOPENING

To the Iowa Industrial Commissioner:

This claimant respectfully states that _____ received a personal injury arising out of and in the course of the employment at _____ on the _____ day of _____, 19_____

1. Describe how injury occurred _____
2. Nature of injury _____
3. Length of time disabled from working (give dates) _____
4. Nature and extent of permanent disability, if any _____
5. Weekly compensation paid by employer or insurance carrier: _____ weeks at \$ _____ per week, \$ _____ weeks at \$ _____ per week, \$ _____
6. Names and addresses of doctors who treated employee _____
7. Was treatment authorized or supplied by employer? _____
8. If not, what are your expenses for doctors? \$ _____ Hospital and medicine \$ _____
9. What is the dispute in this case? _____
10. In what counties or towns do you agree that hearing be held? _____
11. The claimant will be ready for hearing after _____ (date)

The claimant further states that an award for payments or agreement for settlement has been made under the provisions of Chapter 86, Code of Iowa, that the amount has not been commuted, and that since the last payment of compensation there has been a change in the condition of the employee to warrant an increase in compensation.

Wherefore, the claimant prays that this case be reopened as provided in Section 86.34, Code, that the above defendants be required to answer this application for reopening, that a time and place be fixed for hearing hereof, and that an order or award be made granting such relief as the said claimant may be entitled to in the premises:

Dated _____ Signed _____ CLAIMANT

NAME AND ADDRESS OF ATTORNEY

File original and two copies with: INDUSTRIAL COMMISSIONER, STATE CAPITOL COMPLEX, DES MOINES, IOWA 50319

STATE OF IOWA

WORKMEN'S COMPENSATION SERVICE

_____	Claimant
Address _____	
v.	
_____	Employer
Address _____	
_____	Insurance Carrier

APPLICATION
for
ARBITRATION

To the Industrial Commissioner:

This claimant respectfully states that _____ sustained a personal injury or occupational disease arising out of and in the course of the employment at _____ on the _____ day of _____, 19____. This claimant is the _____ (if dependent, state relationship).

1. Check (✓) Married _____ Single _____ Male _____ Female _____; Age _____
2. Children under 16 or incapacitated regardless of age _____
3. Job classification _____ Length of time employed before injury _____
4. Employee was earning when injured \$ _____ per hour; _____ per day; _____ per week.
5. Describe how injury occurred. _____
- _____
- _____
6. Nature of injury _____
- _____
7. Length of time disabled from working (give dates) _____
8. Nature and extent of permanent disability, if any _____
9. Names and addresses of doctors who treated employee _____
- _____
10. Was treatment authorized or supplied by employer? _____
11. If not, what are your expenses for doctors? \$ _____
- _____
- Hospitals and medicine \$ _____
12. What is the dispute in this case? _____
- _____
13. In what counties or towns do you agree that hearing be held? _____
14. The claimant will be ready for hearing after _____ (date)

Having failed to reach an agreement as provided by Sec. 86.14, Code of Iowa, your claimant prays that the above named defendants be required to answer this application for arbitration, that a time and place be fixed for hearing hereof and due notice thereof given, and that upon such hearing, an order or award be made granting such relief as the said claimant may be entitled to in the premises.

_____	Signed, _____
NAME OF ATTORNEY _____	CLAIMANT
_____	Dated, _____
ATTORNEY'S STREET ADDRESS _____	
TOWN _____	TELEPHONE _____

File original and two copies with: INDUSTRIAL COMMISSIONER
STATE CAPITOL COMPLEX, DES MOINES, IOWA 50319

1.7(86) Procedure in disputed cases. Practice and procedure at hearings before the industrial commissioner or his deputies will conform generally to that in any ordinary civil action.

A claimant seeking relief under any section of the workmen's compensation Act shall file his or her application with the industrial commissioner, together with two copies. Thereupon, the industrial commissioner shall serve notice of filing said application, together with a copy of the application, on the adverse party, who shall have fifteen days in which to file answer or pleading. A reply to new matter in an answer, or for the purpose of raising points of law appearing on the face of the answer, shall be filed within ten days after the answer.

(This rule is intended to implement sections 86.14, 86.17, 86.18, 86.24, 86.34 and 86.35.)

1.8(86) Bringing in new parties. When the presence of new parties is required to grant complete relief in any proceeding arising under the workmen's compensation Act, the industrial commissioner may upon application, or his own motion, order them brought in by serving them with Notice of Filing an application, together with a copy of the application.

(This rule is intended to implement sections 86.14, 86.17 and 86.18.)

1.9(86) Amendments. Amendments may be made to any pleading before hearing or to conform to proof.

(This rule is intended to implement sections 86.17 and 86.18.)

1.10(86) Answer. In the answer, the employer and insurance carrier shall admit or deny each allegation of the claimant's application. The answer shall state the conceded extent of temporary or permanent disability, the wage rate, and the amount of benefits paid, and shall state in what counties or towns the employer and insurance carrier agree that

the hearing be held. A defense other than a general denial must be pleaded as a special defense.

(This rule is intended to implement sections 86.14 and 86.35.)

1.11(86) Prehearing procedure. After issues are joined the industrial commissioner may in his discretion direct the parties in any proceeding brought under the workmen's compensation Act to appear before him at such place as the law provides to consider all matters which may aid, expedite or simplify the hearing of any proceeding.

(This rule is intended to implement sections 86.14, 86.17, 86.18 and 86.35.)

1.12(86) Extending time and continuances. For good cause the industrial commissioner may extend the time to comply with any rule or regulation. For good cause and when timely requested, the industrial commissioner may allow a continuance of adjournment of a hearing on such conditions as are fair and just.

(This rule is intended to implement sections 86.14, 86.17, 86.18 and 86.35.)

1.13(86) Shorthand reporter. When he deems it necessary, the industrial commissioner shall hire a shorthand reporter to report any proceeding, or the employer or insurance carrier shall arrange for a shorthand reporter to attend any proceeding when ordered by the industrial commissioner, and in either case he shall tax the expenses thereof as costs.

(This rule is intended to implement section 86.19.)

1.14(86) Depositions. Any party to a proceeding under the workmen's compensation Act may take the testimony of any person, including a party, by deposition upon oral examination or written interrogatories, for the purpose of discovery or for use as evidence in the proceeding, or for both purposes.

(This rule is intended to implement section 86.21.)

[Filed November 18, 1963]

INSURANCE DEPARTMENT

CHAPTER 1

CASUALTY AND FIRE INSURANCE

UNAUTHORIZED INSURANCE CARRIERS

1.1 (515) Affidavit required. Within thirty days subsequent to the effective date of coverage on property in this state placed in unlicensed insurers, the agent shall file with the commissioner of insurance a sworn statement on Form No. SL163, a copy of which is attached hereto and by reference made a part hereof. Copies of Form No. SL163 are available in the office of the insurance commissioner and will be forwarded upon receipt of a request therefor from a qualified licensed insurance agent.

1.2(515) Evidence of coverage. Each agent placing coverage in unlicensed insurers shall deliver to the purchaser written evidence of the coverage listing the names and addresses

of the insurers providing coverages and their relative participation in the risk. Said evidence shall plainly state on its face that the coverage is placed pursuant to sections 515.147 et seq., and that it is placed with an insurer or insurers not licensed to transact an insurance business in Iowa.

1.3 (515) Escrow of taxes. Each agent placing coverage in unauthorized insurers shall maintain a separate bank account in which all sums due the state of Iowa in the form of taxes on unauthorized insurance premiums shall be held. Failure to establish and maintain such accounts shall be deemed grounds for the revocation of all licenses held by said agent under the provisions of chapter 522 of the Code.

1.4(515) Annual report. On or before March 1 of each year, every agent who has

placed insurance in unauthorized insurers during the preceding calendar year shall file with the commissioner of insurance a sworn report of all such business written during the preceding calendar year. Said report shall be accompanied by a remittance to cover the taxes due on said business and shall be filed on Form No. SL263, a copy of which is attached hereto, and by reference made a part hereof. Failure to file said return or pay the taxes imposed by sections 515.147 et seq., will be deemed grounds for the revocation of all licenses issued to the violator by the insurance department.

1.5(515) Prohibited insurers. From time to time the commissioner of insurance shall add the name or names of insurers in which it shall be unlawful to place business to a list contemplated by subsection 2, section 515.147. The names of said insurers shall be added by posting them in a conspicuous place in the office of the insurance department and by such other methods as in the opinion of the insurance commissioner will give all qualified agents in Iowa actual notice of his actions.

(These rules are intended to implement section 515.150 of the Code.)

[Filed August 1, 1963]

UNEARNED PREMIUM RESERVES
ON MORTGAGE GUARANTY
INSURANCE POLICIES

1.6 (515) Unearned premium reserve factors. In the case of premiums paid in advance on ten-year policies, mortgage guaranty insurers shall apply the following annual factors or comparable monthly factors in determining the unearned premium reserve:

Years policy is in force	Unearned premium factor	Years policy is in force	Unearned premium factor
1	81.8	6	18.2
2	65.5	7	10.9
3	50.9	8	5.5
4	38.2	9	1.8
5	27.3	10	—0—

1.7 (515) Contingency reserve. From the premium remaining after applying the appropriate factor from the table in 2.1 (515) above, there shall be maintained a contingency reserve as prescribed in section 515C.3 of the Code.

(These rules are intended to implement section 515C.3 of the Code.)

[Filed November 21, 1963]

1.8 and 1.9 Reserved for future use.

1.10(515) Misleading policy titles. No policies of insurance of any kind, whether life, health and accident, fire, or casualty, will be approved which bear any title or name apt to mislead or confuse the purchaser, and such policy contracts must be identified by words entirely descriptive of their content.

1.11 and 1.12 Reserved for future use.

1.13(515) Collateral loans. The collateral pledged to secure a loan must qualify as a legal investment for insurance companies be-

fore the loan it secures may so qualify (section 515.35, subsection 7). The statute provides that a company may not invest in excess of thirty percent of its capital and funds in stocks and not more than ten percent of its capital and surplus in the stock and/or bonds of any one corporation.

Normally, a loan is little better than the collateral securing it. Therefore, in order to conform to the intent and purpose of the legislature it would appear that the same limitations should likewise be applied to the stock securing a collateral loan. The statute also provides that the value of the collateral must exceed the amount of the loan by ten percent.

1.14 Reserved for future use.

CANCELLATION AND NONRENEWAL
OF AUTOMOBILE INSURANCE
POLICIES

1.15(515D) Definitions. As used in these rules unless otherwise required by the context:

"Commissioner" shall mean the insurance commissioner of Iowa.

"Hearing officer" means the person who will preside over any hearings held pursuant to chapter 515D of the Code.

"Automobile insurance policy" means the same as the definition of "policy" as found in chapter 515D.

1.16(515D) Hearing officer. The commissioner may act as the hearing officer or he may elect to appoint and authorize some qualified person to act as the hearing officer who shall then be responsible for carrying out all the duties and functions of that position.

1.17(515D) Prehearing procedures. Whenever the commissioner has received from a named insured a written request for hearing that has been submitted within fifteen days of receipt of notice of cancellation or nonrenewal, he shall within two days of such request cause to be issued and served upon the insurer effecting the cancellation or nonrenewal at issue a copy of the request or a statement of charges identifying the complainant and a notice of hearing thereon to be held at a time and place fixed in the notice, which hearing shall not be less than ten days after the date of such notice of hearing.

1.17(1) Notice of hearing shall also be sent to the named insured requesting the hearing.

1.17(2) Any statement of charges, notice or order may be served by anyone duly authorized by the commissioner, either in the manner provided by law for service of process in civil actions or by mailing same by certified mail to the parties affected by such statement of charges, notice or order, to his last known address. The verified return by the person so serving setting forth the manner of such service shall be proof of the same, and the return receipt of the certified mailed copy as aforesaid shall also be proof of the service of same.

1.18(515D) Hearing rules. Hearings shall be conducted in an open and equitable manner and such proceedings shall not require the observance of any formal rules of pleading or evidence.

1.18(1) The hearing officer may administer oaths, receive oral and documentary evidence and examine or cross-examine all witnesses when he deems it necessary.

1.18(2) The hearing officer shall have the power to subpoena witnesses, compel their attendance, and require the production of books, papers, records, correspondence, or other documents which he deems relevant and necessary to establishing the existence of the proof or evidence used by the insurer as its reason for cancellation or intent not to renew.

1.18(3) The hearing officer may, and upon the request of any party shall, cause to be made a stenographic record of all the evidence and all the proceedings had at such hearing.

1.19(515D) Hearing order. At the conclusion of the hearing, or not later than three days thereafter, the hearing officer shall issue his written findings to the parties. If he finds for the named insured, he shall either order the insurer to rescind its notice of cancellation or nonrenewal or, if the date such action is to be effective has already elapsed, order the policy reinstated.

1.19(1) Such an order shall operate retroactively only to cover a period not to exceed twenty days from the date cancellation otherwise would have been effective, and prospectively from the date such order was issued.

1.19(2) No policy shall be reinstated while the named insured is in arrears in payment of premium on such policy.

1.19(3) Reinstatement or continuance of a policy by order of the hearing officer shall not operate in any way to extend the anniversary date provided in the policy.

[Filed August 1, 1963; amended November 21, 1963; January 13, 1971]

CHAPTER 2

LIFE INSURANCE POLICIES

2.1(508) Purpose. In the best interest of the citizens of Iowa and to maintain a fair and honest life insurance market, certain types of life policy forms and certain policy provisions shall be either prohibited, altered or clarified as set out herein.

2.2(508) Scope. These rules shall apply to all insurance policies issued by insurance companies holding a certificate of authority under the provisions of chapter 508 of the Code.

2.3(508) Definitions. Certain life insurance policy forms and provisions referred to herein shall have the following meaning:

2.3(1) Founders policy. The term or name assigned to a policy of insurance offered to

the public by a newly organized stock life insurance company, issued on a participating basis with the representations that the purchasers will share preferentially in the future divisible surplus earnings of the company arising from all classes of business, both participating and nonparticipating, and all plans of insurance.

2.3(2) Profit-sharing policy. It is any policy form which contains provisions or is represented in such a way that the policyholder will be eligible to preferentially participate in any future distribution of general corporate profits.

2.3(3) Coupon policy. It is any policy or contract of life insurance, other than annuity, which contains in addition to basic life insurance benefits a series of annual pure endowment benefits evidenced in the policy contract by a series of coupons each of which matures on the maturation date of an annual pure endowment. For the purposes of these rules, policies containing annual pure endowments evidenced by coupons, pass books, or other devices generally acquainted with savings, banking, or investment institutions shall be considered coupon policies.

2.3(4) Pure endowment benefit. It is a guaranteed insurance benefit, actuarially determined, the payment of which is contingent upon the survival of the insured to a specific point in time.

2.4(508) Prohibitions, regulations and disclosure requirements. In accordance with the purpose expressed in rule 2.1(508) and in conjunction with the intent of section 508.28 of the Code, the use of certain types of policy forms and policy provisions shall be subject to the following prohibitions and regulations:

2.4(1) Policy names. Any insurance policy labeled or described as a founders, charter, or coupon policy or names of similar connotation shall not be approved for use in this state on or after the effective date of these rules, and furthermore no policies so named or labeled heretofore approved shall be issued or delivered in this state on or after March 1, 1964.

2.4(2) Founders policy. No founders policy as herein defined shall be approved for use in this state on or after the effective date of these rules, and furthermore, no founders policy as herein defined, heretofore approved shall be issued or delivered in this state on or after March 1, 1964.

2.4(3) Profit-sharing policy. No profit-sharing policy shall be approved for use in this state on or after the effective date of these rules, and furthermore no profit-sharing policy heretofore approved shall be issued or delivered in this state on or after March 1, 1964. This subsection does not intend to restrict or prohibit the sale in this state of any participating life insurance policy where the dividend or abatement of premium is derived

solely from the profits of that class of participating business.

2.4(4) Coupon policy. No coupon policy shall be approved or issued in this state after the effective date of these rules, and furthermore no coupon policy heretofore approved shall be issued or delivered in this state on or after March 1, 1964.

2.4(5) Guaranteed pure endowment benefits. No policy containing a series of guaranteed pure endowment benefits shall be approved for use after the effective date of these rules unless it meets the following requirements:

a. The gross premium charged for this benefit shall be separately stated in a size and style of type equal in prominence to that stating the gross premium for the other benefits contained in the policy.

b. The payment of any guaranteed pure endowment benefit shall not be made contingent upon the payment of premiums falling due on or after the time the pure endowment benefit has matured.

c. The amount of the guaranteed series of pure endowment benefits shall be expressed in dollar amounts and shall not be presented or defined, either in the policy or any sales and advertising material, as a "percentage" of any of the premiums or benefits contained therein.

d. No participating policy shall include as part of its benefits a guaranteed pure endowment benefit.

e. The language and terminology of the policy or any of the sales and advertising materials used in connection with any policy which has a series of pure endowment benefits therein, shall not purport to represent the pure endowment benefit of the policy to be anything other than a guaranteed insurance benefit for which a premium is being paid by the policyholder.

(These rules are intended to implement section 508.28, Code of 1962.)

[Filed November 21, 1963]

2.5 and 2.6 Reserved for future use.

2.7(508) Discrimination. No policy of life or endowment insurance can legally be issued or delivered in the state of Iowa, if it shall purport to be issued or to take effect before the original application for insurance was made, if thereby the insured would rate at an age younger than his age at nearest birthday at the date when the original application was made.

However, this ruling shall not affect the conversion of life term contracts to other types in accordance with the provisions of term forms wherein it provides for the issuance of other type contract as of the date of the issuance of the term contract upon payment of the difference in premiums.

CHAPTER 3

LIFE INSURANCE COMPANIES— VARIABLE ANNUITIES CONTRACTS

3.1(508) Definitions. When used in this regulation:

"Contracts on a variable basis" or "variable contract" shall mean any (group or individual) policy or contract issued by an insurance company which provides for insurance or annuity benefits which may vary according to the investment experience of any separate or segregated account or accounts maintained by the insurer as to such policy or contract, as provided for in sections 508.31 and 508.32 of the Code.

"Agent" shall mean any person who is qualified and licensed as a life insurance agent.

"Variable contract agent" shall mean an agent who sells or offers to sell any contract on a variable basis.

"Commissioner" shall mean the insurance commissioner of Iowa.

3.2(508) Insurance company qualifications.

3.2(1) No company shall deliver or issue for delivery variable contracts within this state unless it is licensed under chapter 508, entitled "Life Insurance Companies", to do a life insurance or annuity business in this state; and the commissioner is satisfied that its condition or method of operation in connection with the issuance of such contracts will not render its operation hazardous to the public or its policyholders in this state. To this end the commissioner shall consider among other things:

a. The history and financial condition of the company,

b. The character, responsibility and fitness of the officers and directors of the company, and

c. The law and regulation under which the company is authorized in the state of domicile to issue variable contracts.

3.2(2) If the company is licensed and is a subsidiary of an admitted life insurance company, or affiliated with such company by common management or ownership, it may be deemed by the commissioner to have satisfied the aforementioned provisions.

3.2(3) Before any company shall deliver or issue for delivery variable contracts within this state, it shall submit to the commissioner:

a. A general description of the kinds of variable contracts it intends to issue,

b. If requested by the commissioner, a copy of the statutes and regulations of its state of domicile under which it is authorized to issue variable contracts, and

c. If requested, biographical data with respect to officers and directors of the company.

3.3(508) Filing, policy forms and provision.

3.3(1) No contract on a variable basis or certificates evidencing variable benefits issued pursuant to any such contract shall be issued

or delivered to any person in this state until a copy of the form of the same has been filed with and approved by the commissioner.

3.3(2) The commissioner shall disapprove or withdraw approval of any such contract form or certificate if:

a. Such contract or certificate contains provisions which are unjust, unfair, inequitable, ambiguous, misleading, likely to result in misrepresentation or contrary to law, or

b. Sales of such contracts are being solicited by any means of advertising, communication or dissemination of information which involves misleading or inadequate description of the provisions of the contract.

3.3(3) Any variable contract delivered or issued for delivery in this state and any certificates evidencing variable benefits issued pursuant to any such contract on a group basis shall contain a statement of the essential features of the procedures to be followed by the insurance company in determining the dollar amount of such variable benefits and shall state that such dollar amounts will vary to reflect investment experience and shall contain on its first page a clear and prominently placed statement to the effect that the benefits thereunder are on a variable basis.

3.3(4) Illustrations of benefits payable under any contract providing benefits payable in variable amounts shall not include projections of past investment experience into the future or attempted predictions of future investment experience. Hypothetical illustrations of rates to possible levels of annuity payments may be used if submitted to and not disapproved by the commissioner.

3.3(5) No individual variable annuity contract calling for the payment of periodic stipulated payments shall be delivered or issued for delivery in this state unless it contains in substance the following provision or provisions which in the opinion of the commissioner are more favorable to the holders of such contracts:

a. A provision that there shall be a period of grace of thirty days or of one month, within which any stipulated payment to the insurer falling due after the first payment may be made, during which period of grace the contract shall continue in force. The contract may include a statement of the basis for determining the date as of which any such payment received during the period of grace shall be applied to produce the values under the contract arising therefrom,

b. A provision that at any time within one year from the date of default, in making periodic stipulated payments to the insurer during the life of the annuitant and unless the cash surrender value has been paid, the contract may be reinstated upon payment to the insurer of such overdue payments as required by the contract and of all indebtedness to the insurer on the contract, including interest. The contract may include a statement of the

basis for determining the date as of which the amount to cover such overdue payments and indebtedness shall be applied to produce the values under the contract arising therefrom,

c. A provision specifying the option available in the event of default in a periodic stipulated payment. Such options may include an option to surrender the contract for a cash value as determined by the contract and shall include an option to receive a paid-up annuity if the contract is not surrendered for cash, the amount of such paid-up annuity being determined by applying the value of the contract at the annuity commencement date in accordance with the terms of the contract.

3.3(6) Any variable contract evidencing variable benefits delivered or issued for delivery in this state shall stipulate the expense, mortality and investment increment factors to be used in computing the dollar amount of variable benefits or other contractual payments or values thereunder, and shall guarantee that expenses will not adversely affect such dollar amounts. In computing the dollar amount of variable benefits or other contractual payments or values under any variable contract, the annual net investment increment assumption shall not exceed five percent, except with the approval of the commissioner. "Expenses" as used in this paragraph may exclude some or all taxes, as stipulated in the contract.

3.3(7) To the extent that the level of benefits may be affected by mortality results, the mortality factor shall be determined from the Annuity Mortality Table for 1949, Ultimate, or any modification of that table not having a higher mortality rate at any age, or, if approved by the commissioner, from another table.

3.3(8) The reserve liability for variable annuities shall be established pursuant to the requirements of the standard valuation law in accordance with actuarial procedure that would recognize the variable nature of the benefits provided.

3.4 (508) Separate account or accounts and investments. Any domestic life insurance company issuing variable contracts shall establish one or more separate or segregated accounts as provided in section 508.32 to invest and reinvest all or any of the amounts received in connection with such variable contracts subject to the following limitations.

3.4(1) Except as hereinafter provided, amounts allocated to any separate or segregated account and accumulation thereon may be invested and reinvested without regard to any requirements or limitations prescribed by the laws of this state governing the investments of life insurance companies; provided, that to the extent that the company's reserve liability with regard to benefits guaranteed as to dollar amount and duration and funds guaranteed as to principal amount or stated rate of interest is maintained in any separate or segregated account, a portion of the assets of such separate or segregated account at least

equal to such reserve liability shall be, except as the commissioner may otherwise approve, invested in accordance with laws of this state governing the investments of life insurance companies. The investments in such separate or segregated account or accounts shall not be taken into account in applying the investment limitations applicable to the investments of the company.

3.4(2) With respect to seventy-five percent of the market value of the total assets in a separate or segregated account, no such company shall purchase or otherwise acquire the securities of any issuer, other than securities issued or guaranteed as to principal and interest by the United States, if immediately after such purchase or acquisition the market value of such investment, together with prior investments of such separate or segregated account in such security taken at market, would exceed five percent of the market value of the assets of said separate or segregated account; provided, however, that the commissioner may waive such limitation if in his opinion such waiver will not render the operation of such separate or segregated account hazardous to the public or the policyholders in this state.

3.4(3) The separate or segregated account shall not invest in the voting securities of a single issuer in an amount in excess of ten percent of the total issued and outstanding voting securities of such issuer. The foregoing shall not apply with respect to securities held in separate or segregated accounts, the voting rights in which are exercisable only in accordance with instructions from persons having interests in such accounts.

3.4(4) The limitations in 3.4(2), 3.4(3) and 3.4(6) shall not apply to the investments of a separate or segregated account in the securities of an investment company registered under the investment company Act of 1940, provided the investments of such investment companies comply in substance with 3.4(2) and 3.4(3) hereof.

3.4(5) Unless otherwise approved by the commissioner, assets allocated to a separate or segregated account shall be valued at their market value on the date of valuation or, if there is no readily available market, then as provided under the terms of the contract or the rules or other written agreement applicable to such separate or segregated account; provided, that the portion of the assets of such separate or segregated account equal to the company's reserve liability with regard to the benefits and funds referred to in 3.4(1), if any, shall be valued in accordance with the rules otherwise applicable to the company's assets.

3.4(6) All such common stock investments shall be in stock which is listed or admitted to trading on a securities exchange registered under the Securities Exchange Act of 1934 or which is publicly held and has been traded in the "over-the-counter market" and as to which current stock market quotations are readily available.

3.4(7) The provisions of section 508.8 and any regulations applicable to the officers and directors of insurance companies with respect to conflicts of interest shall also apply to members of any separate or segregated account's committee, board or other similar body. No officer or director of such company nor any member of the committee, board or body of a separate or segregated account shall receive directly or indirectly any commission or any other compensation with respect to the purchase or sale of assets of such separate or segregated account.

3.4(8) All contracts on a variable basis shall state that the portion of the assets of any such separate or segregated accounts equal to the reserves and other contract liabilities with respect to such account shall not be chargeable with liabilities arising out of any other business the company may conduct.

3.4(9) Notwithstanding any other provisions in these rules, a company may:

a. With respect to any separate or segregated account registered with the securities and exchange commission as a unit investment trust exercise voting rights in connection with any securities of a regulated investment company registered under the investment company Act of 1940 and held in such separate or segregated account in accordance with instructions from persons having interests in such accounts ratably as determined by the company, or

b. With respect to any separate or segregated account registered with the securities and exchange commission as a management investment company, establish for such account a committee, board or other body, the members of which may or may not be otherwise affiliated with such company and may be elected to such membership by the vote of persons having interests in such account ratably as determined by the company. Such committee, board or other body may have the power, exercisable alone or in conjunction with others, to manage such account or accounts and the investment of its assets.

A company, committee, board or other body may make such other provisions in respect to any such separate or segregated account as may be deemed appropriate to facilitate compliance with requirements of any federal or state law now or hereafter in effect; provided that the commissioner approves such provisions as not hazardous to the public or the company's policyholders in this state.

3.4(10) No sale, exchange or other transfer of assets may be made by a company between any of its separate or segregated accounts or between any other investment account and one or more of its separate or segregated accounts unless, in case of a transfer into a separate or segregated account, such transfer is made solely to establish the account or to support the operation of the contracts with respect to such account to which the transfer is made and unless such transfer, whether into or from an account or accounts, is made by a transfer of cash or by a transfer

of securities having a valuation which could be readily determined in the market place, and further provided that such transfer of securities must have been approved by the commissioner. The commissioner may authorize other transfers among such accounts if, in his opinion, such transfers would not be inequitable. The assets of such accounts shall not be pledged or transferred by the company or the separate or segregated account as collateral for a loan.

3.4(11) The company shall maintain in each such separate or segregated account assets with a value at least equal to the reserves and other contract liabilities with respect to such accounts, except as may otherwise be approved by the commissioner.

3.5(508) Required reports. Any company issuing individual variable contracts providing benefits in variable amounts shall mail to the contract holder, at least once in each contract year after the first, at his last address known to the company, a statement or statements reporting the investments held in the separate or segregated account and, in the case of contracts under which payments have not yet commenced, a statement reporting as of a date not more than four months previous to the date of mailing the number of accumulation units credited to such contracts and the dollar value of a unit or the value of the contract holder's account.

An insurer issuing contracts on a variable basis shall annually on or before March 1 submit to the commissioner an annual statement for the business of its separate or segregated accounts. This statement shall be on such form as may be prescribed by the National Association of Insurance Commissioners and shall include details as to all of the income, disbursements, assets and liability items associated with such account or accounts and such other information as the commissioner of insurance may reasonably require.

3.6(508) Examination of agents and other persons. No agent shall be eligible to sell or offer for sale a contract on a variable basis unless prior to making any solicitation or sale of such a contract, he also be licensed as a variable contract agent, however, any agent who participates only in the sale or offering for sale of variable contracts that are not registered under the federal Securities Act of 1933 need not be licensed as a variable contract agent.

3.6(1) Any agent applying for a license as a variable contract agent shall do so by filing with this department the form or forms approved for such use by the commissioner.

3.6(2) The licensing as a variable contract agent complying with 3.6(1) shall not become effective until such agent shall have satisfactorily passed a written examination upon securities and variable contracts. Such examination to be divided into two parts. Part I shall be on securities generally. Part II shall deal with variable contracts and shall be composed

of at least fifteen questions, but not more than fifty questions, concerning the history, purpose, regulation and sale of contracts on a variable basis.

3.6(3) The examination will be given in such places and at such times as the commissioner shall from time to time designate. Upon application for license as a variable contract agent, the applicant shall be notified of the date of the next examination.

3.6(4) The examination recommended for the testing of variable contract agents by the National Association of Insurance Commissioners and such other approved tests as the commissioner may deem adequate for such testing are to be used in this state, except as provided hereafter in 3.6(5) and 3.6(6).

3.6(5) A satisfactory alternative examination to Part I of the written examination called for in 3.6(2) above shall include any securities examination which is declared by the commissioner to be an equivalent examination on the basis of content and administration. The following examinations are deemed to be a satisfactory alternative examination:

- a. Any state securities sales examination.
- b. The National Association of Securities Dealers, Inc. Examination for Principals, or Examination for Qualification as a Registered Representative.
- c. The various securities examinations required by the New York Stock Exchange, the American Stock Exchange, Pacific Stock Exchange, or any other registered national securities exchange which the commissioner approves as a satisfactory alternative examination.

d. The securities and exchange commission test given pursuant to section 15(b)(8) of the Securities Exchange Act of 1934.

e. The examination recommended for the testing of variable contract agents by the National Association of Insurance Commissioners, when adopted by the insurance department of any state or territory of the United States and approved for use by such department by the securities and exchange commission.

3.6(6) Any applicant for license as a variable contract agent shall not be required to take Part I of the National Association of Insurance Commissioner's examination if, at the time of application, evidence is presented that the applicant:

- a. Has previously passed a satisfactory alternative examination as defined in 3.6(5) of these rules, or
- b. Is currently registered with the federal securities and exchange commission as a broker-dealer, or
- c. Is currently associated with a broker-dealer and has met qualification requirements with respect to such association.

3.6(7) Every applicant applying for license as a variable contract agent shall satis-

factorily complete Part II of the examination required by 3.6(2) with a grade of at least seventy percent, or shall present evidence of a successful completion of either a variable contract examination given under the supervision of an insurance department of any state or territory of the United States which has adopted Part II of the examination recommended for the testing of variable contract agents by the National Association of Insurance Commissioners or has been examined and licensed by any such department prior to its adoption of the National Association of Insurance Commissioners model regulation.

3.6(8) Any applicant who fails to pass Part I of the examination required by 3.6(2) may not take Part I of the examination again until seven days after initially taking it. After a second such failure, such applicant may not take the examination again until ninety days after taking the second examination. After a third and any subsequent failure, such applicant may not take the examination again until one hundred eighty days after the third and any subsequent examinations.

Any applicant failing to pass Part II of the examination may take Part II again seven days after the first examination. After a second such failure, such applicant may not take the examination again until ninety days after taking the second examination. After a third and any subsequent such failure, such applicant may not take the examination again until one hundred eighty days after the third and any subsequent examinations.

3.6(9) Every application for a license as a variable contract agent shall be accompanied by an examination fee of five dollars per part to be taken. A fee of five dollars per part will be charged for each re-examination administered to an applicant.

3.6(10) Report of the results of any examination given pursuant to this rule shall be made by the department on any appropriate form approved by the commissioner.

3.6(11) Part I of the written examination provided for in 3.6(2) shall also be administered to other persons who are not required to be licensed to sell insurance in this state upon their submission of the form or forms approved for such use by the commissioner and payment of the examination fee.

3.6(12) Results of the examination administered pursuant to 3.6(2) will be reported by this department to the applicant or his company. In addition, examination results will be reported by this department to any other state insurance department requesting confirmation of the examination grade, either upon request of such department or upon request of the applicant or his company. A charge of one dollar shall be made for any certification requested.

3.6(13) Records of the examination grade of each applicant upon an examination administered by this department, or upon an exami-

nation deemed to be a satisfactory alternative examination and administered by another agency or authority and reported to this department, will be retained in the file pertaining to said applicant.

3.6(14) Any person licensed in this state as a variable contract agent shall immediately report to the commissioner:

a. Any suspension or revocation of his variable contract agent's license or life insurance agent's license in any other state or territory of the United States.

b. The imposition of any disciplinary sanction including suspension or expulsion from membership, suspension or revocation of or denial of registration imposed upon him by any national securities exchange, or national securities association, or any federal, or state or territorial agency with jurisdiction over securities or contracts on a variable basis.

c. Any judgment or injunction entered against him on the basis of conduct deemed to have involved fraud, deceit, misrepresentation, or violation of any insurance or securities law or regulation.

3.6(15) The commissioner may reject any application, suspend, revoke or refuse to renew any variable contract agent's license upon any ground that would bar such applicant or such agent from being licensed to sell life insurance contracts or securities in this state. The rules governing any proceeding relating to the suspension or revocation of a life insurance agent's license shall also govern any proceeding for suspension or revocation of a variable contract agent's license.

3.6(16) Renewal of a variable contract agent's license shall follow the same procedure established for renewal of an agent's license to sell life insurance contracts in this state.

3.7(508) Foreign companies. If the law or regulation in the place of domicile of a foreign company provides a degree of protection to the policyholders and the public which is substantially equal to that provided by these regulations, the commissioner, to the extent deemed appropriate by him in his discretion, may consider compliance with such law or regulation as compliance with these regulations.

[Filed December 17, 1968]

CHAPTER 4

ORGANIZATION OF DOMESTIC INSURANCE COMPANIES

4.1(506) Definitions.

4.1(1) Promoters. Promoters shall mean any incorporator, organizer, founder or other person or corporation who, acting alone or in concert with other persons, is initiating or directing, or has within one year initiated or directed, the organization of a new insurance company.

4.1(2) Public moneys. Public moneys shall mean the price paid by persons other than promoters for securities.

4.2(506) Promoters contributions. Promoters shall invest of their own funds at least twenty percent of the proposed issue in cash. If something other than cash is contemplated to meet the requirements of this rule, it shall be valued by the commissioner of insurance in accordance with the provisions of section 492.7 of the 1962 Code of Iowa.

4.3(506) Escrow. All public moneys shall be escrowed one hundred percent until the issue is sold unless sooner released by written order of the commissioner of insurance; in the event the issue is not completely sold, all expenses incurred in corporate organization, sale of securities, and cost of liquidation shall be paid from funds acquired from promoters.

4.4(506) Alienation. In the event of a public offering, no securities held by promoters shall, for a three year period from the date of acquisition, be alienated or hypothecated (except by operation of law) unless the operation of the insurance company produces earned surplus for two consecutive years.

4.5(506) Sales to promoters. In the event of a public offering, no securities shall be acquired by promoters at less than the public offering price.

4.6(506) Options. In the event of a public offering, stock options or warrants acquired by promoters shall not exceed ten percent of the issue.

4.7(506) Qualifications of management. The general plan of organization as contemplated in section 506.3 of the Code shall include proposed management personnel with biographical sketches, including state of residence and complete insurance experience of each.

4.8(506) Chief executive. The chief executive officer of a newly organized insurance company shall be a bona fide resident of Iowa and unless removed for cause and while acting in this capacity shall devote his entire time to such duties unless this requirement is specifically waived by written order of the commissioner of insurance. For purposes of this rule, a newly organized insurance company shall be deemed to be a company in existence for three years or less.

4.9(506) Directors. The majority of the directors shall be bona fide residents of the state of Iowa unless specifically waived by written permission of the commissioner of insurance.

(These rules were intended to implement section 506.1 of the Code.)

[Filed November 21, 1963]

CHAPTER 5

ACCIDENT AND HEALTH INSURANCE BLANKET ACCIDENT AND SICKNESS INSURANCE

5.1(509) Purpose. The purpose of this regulation is to establish guidelines for insurers to make special risk coverage available to par-

ticular groups that will be exposed to specific hazards for a certain period of time.

5.2(509) Scope. These rules shall apply to all insurance companies holding a certificate of authority to transact the business of insurance under the provisions of chapters 508 and 515, 1962 Code of Iowa.

5.3(509) Definitions.

5.3(1) Blanket accident and sickness insurance is hereby declared to be that form of accident, sickness or accident and sickness insurance designed to insure against specified hazards incident to or defined by reference to a particular activity or activities and covering groups of persons as enumerated in the following subparagraphs:

a. Under a policy issued to an employer, who shall be deemed the policyholder covering any group of employees defined by reference to specific hazards incident to an activity or activities of the policyholder.

b. Under a policy issued to a college, high school, junior high school, grade school, school district, school jurisdictional unit or other institution of learning; or to the head, principal, governing board of any such educational unit who or which shall be deemed the policyholder covering students, teachers or employees.

c. Under a policy issued to any religious, charitable or educational organization, or branch thereof, which shall be deemed the policyholder covering any group of members or participants defined by reference to specified hazards incident to an activity or activities sponsored or supervised by such policyholder.

d. Under a policy issued to a sports team, youth camp, recreational organization or sponsor thereof, which shall be deemed the policyholder, covering members, campers, participants, employees, officials or supervisors.

e. Under a policy issued to any volunteer fire department, first aid, civil defense, or other such volunteer organizations, which shall be deemed the policyholder, covering any group of members or participants defined by reference to specified hazards incident to an activity or activities or operations sponsored or supervised by such policyholder.

f. Under a policy issued to a newspaper or other publisher, which shall be deemed the policyholder, covering its carriers.

g. Under a policy issued to an association, other than a labor union, trade association or industrial association, which shall have a constitution and bylaws and which has been organized and is maintained in good faith for purposes other than that of obtaining insurance, which shall be deemed the policyholder, covering any group of members or participants defined by reference to specified hazards incident to an activity or activities or operations sponsored or supervised by such policyholder.

h. Under a policy issued to cover any other risk or class of risks which, in the discretion of the commissioner, may be properly eligible for blanket accident and sickness insurance. The discretion of the commissioner may be exercised on an individual risk basis or class of risks, or both.

5.3(2) Brochure shall mean an instrument, booklet or pamphlet setting forth a statement as to the insurance protection provided, to whom the insurance benefits are payable, sufficient information on the procedure an insured shall follow in filing a claim and such other provisions as are in the opinion of the commissioner of insurance necessary to inform the holder thereof as to his rights under the policy.

5.4(509) Required provisions. No blanket policy as herein defined shall be issued or delivered in this state unless a copy of the policy and brochure if required, has been approved by the commissioner of insurance. All policies of blanket accident or sickness insurance or combination thereof issued in this state shall contain in substance the following provisions:

5.4(1) A provision that the policy including endorsements and a copy of the application, if any, of the policyholder and the persons insured shall constitute the entire contract between the parties, and that any statement made by the policyholder or by a person insured shall in the absence of fraud, be deemed a representation and not a warranty. No such statement shall be used in defense of a claim under the policy, unless it is contained in a written application. If a copy of such application is not delivered to the person insured the insurer shall be precluded from introducing such application as evidence in any action involving any statements contained therein.

5.4(2) A provision that written notice of sickness or of injury must be given to the insurer within twenty days after the date when such sickness or injury occurred. Failure to give notice within such time shall not invalidate nor reduce any claim if it shall be shown not to have been reasonably possible to give such notice and that notice was given as soon as was reasonably possible.

5.4(3) A provision that the insurer will furnish either to the claimant or to the policyholder for delivery to the claimant such forms as are usually furnished by it for filing proof of loss. If such forms are not furnished before the expiration of fifteen days after giving such notice, the claimant shall be deemed to have complied with the requirements of the policy as to proof of loss upon submitting within the time fixed in the policy for filing proof of loss, written proof covering the occurrence, the character and the extent of the loss for which claim is made.

5.4(4) A provision that in the case of claim for loss of time for disability, written

proof of such loss must be furnished to the insurer within ninety days after the commencement of the period for which the insurer is liable, and that subsequent written proofs of the continuance of such disability must be furnished to the insurer at such intervals as the insurer may reasonably require, and that in the case of claim for any other loss, written proof of such loss must be furnished to the insurer within ninety days after the date of such loss. Failure to furnish such proof within such time shall not invalidate nor reduce any claim if it shall be shown not to have been reasonably possible to furnish such proof and that such proof was furnished as soon as was reasonably possible.

5.4(5) A provision that all benefits payable under the policy other than benefits for loss of time will be payable immediately upon receipt of due written proof of such loss, and that, subject to due proof of loss, all accrued benefits payable under the policy for loss of time will be paid not less frequently than monthly during the continuance of the period for which the insurer is liable, and that any balance remaining unpaid at the termination of such period will be paid immediately upon receipt of such proof.

5.4(6) A provision that the insurer at its own expense, shall have the right and opportunity to examine the person of the insured when and so often as it may reasonably require during the pendency of claim under the policy and also the right and opportunity to make an autopsy where it is not prohibited by law.

5.4(7) A provision that no action at law or in equity shall be brought to recover under the policy prior to the expiration of sixty days after written proof of loss has been furnished in accordance with the requirements of the policy and that no such action shall be brought after the expiration of three years after the time written proof of loss is required to be furnished.

5.5(509) Application and certificates not required. An individual application need not be required from a person covered under a blanket accident and sickness policy, nor shall it be necessary for the insurer to furnish each person a certificate, however, a brochure as herein defined shall be issued to the policyholder for delivery to each person insured as defined in subparagraphs "b" and "g" of subsection 1.3(1) of these rules.

5.6(509) Facility of payment. All benefits under any blanket accident and sickness policy shall be payable to the person insured, to a designated beneficiary or beneficiaries, or to his estate, except that if the person insured be a minor or otherwise not competent to give a valid release, such benefits may be made payable to his parent, guardian or other person actually supporting him. The policy may also provide that all or a portion of any indemnities provided by any such policy on

account of hospital, nursing, medical or surgical services may with the written consent of the insured be paid directly to the hospital or person rendering such services, but the policy may not require that the services be rendered by a particular hospital or person. Payment so made shall discharge the obligation of the insurer with respect to the amount of insurance so paid.

These rules are intended to implement section 509.6.

[Filed November 16, 1965]

CHAPTER 6

DOMESTIC STOCK INSURERS PROXIES PROXY REGULATIONS

6.1(523) Application of regulation. This regulation is applicable to all domestic stock insurers having one hundred or more stockholders; provided, however, that this regulation shall not apply to any insurer if ninety-five per cent or more of its stock is owned or controlled by a parent or an affiliated insurer and the remaining shares are held by less than five hundred stockholders. A domestic stock insurer which files with the securities and exchange commission forms of proxies, consents and authorizations complying with the requirements of the Securities and Exchange Act of 1934 and the Securities and Exchange Acts Amendments of 1964 and regulation X-14 of the securities and exchange commission promulgated thereunder shall be exempt from the provisions of this regulation.

6.2(523) Proxies, consents and authorizations. No domestic stock insurer, or any director, officer or employee of such insurer subject to section one hereof, or any other person, shall solicit, or permit the use of his name to solicit, by mail or otherwise, any proxy, consent or authorization in respect of any stock of such insurer in contravention of this regulation and Schedules A and B hereto annexed and hereby made a part of this regulation.

6.3(523) Disclosure of equivalent information. Unless proxies, consents or authorizations in respect of a stock of a domestic insurer subject to section one hereof are solicited by or on behalf of the management of such insurer from the holders of record of stock of such insurer in accordance with this regulation and the schedules thereunder prior to any annual or other meeting, such insurer shall, in accordance with this regulation and such further regulations as the commissioner may adopt, file with the commissioner, and transmit to all stockholders of record information substantially equivalent to the information which would be required to be transmitted if a solicitation were made.

6.4(523) Definitions.

6.4(1) The definitions and instructions set out in schedule SIS, as promulgated by the National Association of Insurance Commission-

ers, shall be applicable for purposes of this regulation.

6.4(2) The terms "solicit" and "solicitation" for purposes of this regulation shall include:

a. Any request for a proxy, whether or not accompanied by or included in a form of proxy; or

b. Any request to execute or not to execute, or to revoke, a proxy; or

c. The furnishing of a proxy or other communication to stockholders under circumstances reasonably calculated to result in the procurement, withholding or revocation of a proxy.

6.4(3) The terms "solicit" and "solicitation" shall not include:

a. Any solicitation by a person in respect of stock of which he is the beneficial owner;

b. Action by a broker or other person in respect to stock carried in his name or in the name of his nominee in forwarding to the beneficial owner of such stock soliciting material received from the company, or impartially instructing such beneficial owner to forward a proxy to the person, if any, to whom the beneficial owner desires to give a proxy, or impartially requesting instructions from the beneficial owner with respect to the authority to be conferred by the proxy and stating that a proxy will be given if the instructions are received by a certain date;

c. The furnishing of a form of proxy to a stockholder upon the unsolicited request of such stockholder, or the performance by any person of ministerial acts on behalf of a person soliciting a proxy.

6.5(523) Information to be furnished to stockholders.

6.5(1) No solicitation subject to this regulation shall be made unless each person solicited is concurrently furnished or has previously been furnished with a written proxy statement containing the information specified in Schedule A.

6.5(2) If the solicitation is made on behalf of the management of the insurer and relates to an annual meeting of stockholders at which directors are to be elected, each proxy statement furnished pursuant to subsection one hereof shall be accompanied or preceded by an annual report (in preliminary or final form) to such stockholders containing such financial statements for the last fiscal year as are referred to in Schedule SIS under the heading "Financial Reporting to Stockholders." Subject to the foregoing requirements with respect to financial statements, the annual report to stockholders may be in any form deemed suitable by the management.

6.5(3) Two copies of each report sent to the stockholder pursuant to this section shall be mailed to the commissioner not later than the

date on which such report is first sent or given to stockholders or the date on which preliminary copies of solicitation material are filed with the commissioner pursuant to subsection 6.7(1), whichever date is later.

6.6(523) Requirements as to proxy.

6.6(1) The form of proxy (a) shall indicate in bold-face type whether or not the proxy is solicited on behalf of the management, (b) shall provide a specifically designated blank space for dating the proxy and (c) shall identify clearly and impartially each matter or group of related matters intended to be acted upon, whether proposed by the management, or stockholders. No reference need be made to proposals as to which discretionary authority is conferred pursuant to subsection three hereof.

6.6(2) Means shall be provided in the proxy for the person solicited to specify by ballot a choice between approval or disapproval of each matter or group of related matters referred to therein, other than elections to office. A proxy may confer discretionary authority with respect to matters as to which a choice is not so specified if the form of proxy states in bold-face type how it is intended to vote the shares or authorization represented by the proxy in each such case.

6.6(3) A proxy may confer discretionary authority with respect to other matters which may come before the meeting, provided the persons on whose behalf the solicitation is made are not aware a reasonable time prior to the time the solicitation is made that any other matters are to be presented for action at the meeting and provided further that a specific statement to that effect is made in the proxy statement or in the form of proxy.

6.6(4) No proxy shall confer authority (a) to vote for the election of any person to any office for which a bona fide nominee is not named in the proxy statement, or (b) to vote at any annual meeting other than the next annual meeting (or any adjournment thereof) to be held after the date on which the proxy statement and form of proxy are first sent or given to stockholders.

6.6(5) The proxy statement or form of proxy shall provide, subject to reasonable specified conditions, that the proxy will be voted and that where the person solicited specifies by means of ballot provided pursuant to subsection two hereof a choice with respect to any matter to be acted upon, the vote will be in accordance with the specifications so made.

6.6(6) The information included in the proxy statement shall be clearly presented and the statements made shall be divided into groups according to subject matter, with appropriate headings. All printed proxy statements shall be clearly and legibly presented.

6.7(523) Material required to be filed.

6.7(1) Two preliminary copies of the proxy statement and form of proxy and any

other soliciting material to be furnished to stockholders concurrently therewith shall be filed with the commissioner at least ten days prior to the date definitive copies of such material are first sent or given to stockholders, or such shorter period prior to that date as the commissioner may authorize upon a showing of good cause therefor.

6.7(2) Two preliminary copies of any additional soliciting material relating to the same meeting or subject matter to be furnished to stockholders subsequent to the proxy statements shall be filed with the commissioner at least two days (exclusive of Saturdays, Sundays or holidays) prior to the date copies of this material are first sent or given to stockholders or a shorter period prior to such date as the commissioner may authorize upon a showing of good cause therefor.

6.7(3) Two definitive copies of the proxy statement, form of proxy and all other soliciting material, in the form in which this material is furnished to stockholders, shall be filed with, or mailed for filing to, the commissioner not later than the date such material is first sent or given to the stockholders.

6.7(4) Where any proxy statement, form of proxy or other material filed pursuant to these rules is amended or revised, two of the copies shall be marked to clearly show such changes.

6.7(5) Copies of replies to inquiries from stockholders requesting further information and copies of communications which do no more than request that forms of proxy theretofore solicited be signed and returned need not be filed pursuant to this section.

6.7(6) Notwithstanding the provisions of subsections 6.7(1) and 6.7(2) hereof and of subsection five of section eleven, copies of soliciting material in the form of speeches, press releases and radio or television scripts may, but need not, be filed with the commissioner prior to use or publication. Definitive copies, however, shall be filed with or mailed for filing to the commissioner as required by subsection 6.7(3) hereof not later than the date such material is used or published. The provisions of subsections one and two hereof and subsection five of section eleven shall apply, however, to any reprints or reproductions of all or any part of such material.

6.8(523) False or misleading statements. No solicitation subject to this regulation shall be made by means of any proxy statement, form of proxy, notice of meeting, or other communication, written or oral, containing any statement which at the time and in the light of the circumstances under which it is made, is false or misleading with respect to any material fact, or which omits to state any material fact necessary in order to make the statements therein not false or misleading or necessary to correct any statement in any earlier com-

munication with respect to the solicitation of a proxy for the same meeting or subject matter which has become false or misleading.

6.9(523) Prohibition of certain solicitations.

No person making a solicitation which is subject to this regulation shall solicit any undated or postdated proxy or any proxy which provides that it shall be deemed to be dated as of any date subsequent to the date on which it is signed by the stockholder.

6.10(523) Special provisions applicable to election contests.

6.10(1) Applicability. This section shall apply to any solicitation subject to this regulation by any person or group for the purpose of opposing a solicitation subject to this regulation by any other person or group with respect to the election or removal of directors at any annual or special meeting of stockholders.

6.10(2) Participant or participant in a solicitation.

a. For purposes of this section the term "participant" and "participant in a solicitation" include: (1) The insurer; (2) any director of the insurer, and any nominee for whose election as a director proxies are solicited; (3) any other person, acting alone or with one or more other persons, committees or groups, in organizing, directing or financing the solicitation.

b. For the purposes of this section the term "participant" and "participant in a solicitation" do not include: (1) A bank, broker or dealer who, in the ordinary course of business, lends money or executes orders for the purchase or sale of stock and who is not otherwise a participant; (2) any person or organization retained or employed by a participant to solicit stockholders or any person who merely transmits proxy soliciting material or performs ministerial or clerical duties; (3) any person employed in the capacity of attorney, accountant or advertising, public relations or financial adviser, and whose activities are limited to the performance of his duties in the course of such employment; (4) any person regularly employed as an officer or employee of the insurer of any of its subsidiaries or affiliates who is not otherwise a participant; or (5) any officer or director of, or any person regularly employed by any other participant, if such officer, director, or employee is not otherwise a participant.

6.10(3) Filing of information required by Schedule B.

a. No solicitation subject to this section shall be made by any person other than the management of an insurer unless at least five business days prior thereto, or such shorter period as the commissioner may authorize upon a showing of good cause therefor, there has been filed, with the commissioner by or on behalf of each participant in such solicitation, a statement in duplicate containing the information specified by Schedule B and a copy of any material proposed to be distributed to stock-

holders in furtherance of such solicitation. Where preliminary copies of any materials are filed, distribution to stockholders should be deferred until the commissioner's comments have been received and complied with.

b. Within five business days after a solicitation subject to this section is made by the management of an insurer, or such longer period as the commissioner may authorize upon a showing of good cause therefor, there shall be filed with the commissioner by or on behalf of each participant in such solicitation, other than the insurer, and by or on behalf of each management nominee for director, a statement in duplicate containing the information specified by Schedule B.

c. If any solicitation on behalf of a management or any other person has been made, or if proxy material is ready for distribution, prior to a solicitation subject to this section in opposition thereto, a statement in duplicate containing the information specified in Schedule B shall be filed with the commissioner by or on behalf of each participant in such prior solicitation, other than the insurer, as soon as reasonably practicable after the commencement of the solicitation in opposition thereto.

d. If, subsequent to the filing of the statements required by paragraphs "a", "b" and "c" of this subrule, additional persons become participants in a solicitation subject to this rule, there shall be filed with the commissioner by or on behalf of each such person, a statement in duplicate containing the information specified by Schedule B, within three business days after such person becomes a participant, or such longer period as the commissioner may authorize upon a showing of good cause therefor.

e. If any material change occurs in the facts reported in any statement filed by or on behalf of any participant, an appropriate amendment to such statement shall be filed promptly with the commissioner.

f. Each statement and amendment thereto filed pursuant to this paragraph shall be part of the public files of the commissioner.

6.10(4) Solicitations prior to furnishing required written proxy statement. Notwithstanding the provisions of subsection 6.5(1), a solicitation subject to this section may be made prior to furnishing stockholders a written proxy statement containing the information specified in Schedule A with respect to such solicitation, provided that:

a. The statements required by 6.10(3) hereof are filed by or on behalf of each participant in such solicitation.

b. No form of proxy is furnished to stockholders prior to the time the written proxy statement required by subsection 6.5(1) is furnished to such persons: Provided, however, that this paragraph "b" shall not apply where a proxy statement then meeting the requirements of Schedule A has been furnished to stockholders.

c. At least the information specified in paragraphs "b" and "c" of the statements required by 6.10(3) hereof to be filed by each participant, or an appropriate summary thereof, are included in each communication sent or given to stockholders in connection with the solicitation.

d. A written proxy statement containing the information specified in Schedule A with respect to a solicitation is sent or given stockholders at the earliest practicable date.

6.10(5) Solicitations prior to furnishing required written proxy statement—Filing requirements. Two copies of any soliciting material proposed to be sent or given to stockholders prior to the furnishing of the written proxy statement required by subsection 6.5(1) shall be filed with the commissioner in preliminary form at least five business days prior to the date definitive copies of such material are first sent or given to such persons, or shorter period as the commissioner may authorize upon a showing of good cause therefor.

6.10(6) Application of this section to report. Notwithstanding the provisions of 6.5(2) and 6.5(3), two copies of any portion of the report referred to in 6.5(2) which comments upon or refers to any solicitation subject to this section, or to any participant in any such solicitation, other than the solicitation by the management, shall be filed with the commissioner, as proxy material subject to this regulation. Such portion of the report shall be filed with the commissioner, in preliminary form, at least five business days prior to the date copies of the report are first sent or given to stockholders.

(These rules are intended to implement chapter 523 of the Code.)

[Filed April 15, 1966]

SCHEDULE A INFORMATION REQUIRED IN PROXY STATEMENT

Item 1. Revocability of proxy. State whether or not the person giving the proxy has the power to revoke it. If the right of revocation before the proxy is exercised is limited or is subject to compliance with any formal procedure, briefly describe such limitation or procedure.

Item 2. Dissenters' rights of appraisal. Outline briefly the rights of appraisal or similar rights of dissenting stockholders with respect to any matter to be acted upon and indicate any statutory procedure required to be followed by such stockholders in order to perfect their rights. Where such rights may be exercised only within a limited time after the date of the adoption of a proposal, the filing of a charter amendment, or other similar act, state whether the person solicited will be notified of such date.

Item 3. Persons making solicitations not subject to 1.10(523).

a. If the solicitation is made by the management of the insurer, so state. Give the name of any director of the insurer who has informed the management in writing that he intends to oppose any action intended to be taken by the management and indicate the action which he tends to oppose.

b. If the solicitation is made otherwise than by the management of the insurer, state the names and addresses of the persons by whom and on whose behalf it is made and the names and addresses of the persons by whom the cost of solicitation has been or will be borne, directly or indirectly.

c. If the solicitation is to be made by specially engaged employees or paid solicitors, state (1) the material features of any contract or arrangement for such solicitation and identify the parties, and (2) the cost or anticipated cost thereof.

Item 4. Interest of certain persons in matters to be acted upon. Describe briefly any substantial interest, direct or indirect, by stockholdings or otherwise, of any director, nominee for election for director, officer and, if the solicitation is made otherwise than on behalf of management, each person on whose behalf the solicitation is made, in any matter to be acted upon other than elections to office.

Item 5. Stocks and principal stockholders.

a. State, as to each class of voting stock of the insurer entitled to be voted at the meeting, the number of shares outstanding and the number of votes to which each class is entitled.

b. Give the date as of which the record list of stockholders entitled to vote at the meeting will be determined. If the right to vote is not limited to stockholders of record on that date, indicate the conditions under which other stockholders may be entitled to vote.

c. If action is to be taken with respect to the election of directors and if the persons solicited have cumulative voting rights, make a statement that they have such rights and state briefly the conditions precedent to the exercise thereof.

Item 6. Nominees and directors. If action is to be taken with respect to the election of directors furnish the following information in tabular form to the extent practicable, with respect to each person nominated for election as a director and each other person whose term of office as a director will continue after the meeting:

a. Name each such person, state when his term of office or the term of office for which he is a nominee will expire, and all other positions and office with the insurer presently held by him, and indicate which persons are nominees for election as directors at the meeting.

b. State his present principal occupation or employment and give the name and principal business of any corporation or other or-

ganization in which such employment is carried on. Furnish similar information as to all of his principal occupations or employments during the last five years, unless he is now a director and was elected to his present term of office by a vote of stockholders at a meeting for which proxies were solicited under this regulation.

c. If he is or has previously been a director of the insurer, state the period or periods during which he has served as such.

d. State, as of the most recent practicable date, the approximate amount of each class of stock of the insurer or any of its parents, subsidiaries or affiliates other than directors' qualifying shares, beneficially owned directly or indirectly by him. If he is not the beneficial owner of any such stocks make a statement to that effect.

Item 7. Remuneration and other transactions with management and others. Furnish the information reported or required in Item One of Schedule SIS under the heading "Information Regarding Management and Directors" if action is to be taken with respect to (a) the election of directors, (b) any remuneration plan, contract or arrangement in which any director, nominee for election as a director, or officer of the insurer will participate, (c) any pension or retirement plan in which any such person will participate, or (d) the granting or extension to any such person of any options, warrants or rights to purchase any stocks, other than warrants or rights issued to stockholders, as such, on a pro rata basis. If the solicitation is made on behalf of persons other than the management, information shall be furnished only as to Item One-A of the aforesaid heading of Schedule SIS.

Item 8. Bonus, profit sharing and other remuneration plans. If action is to be taken with respect to any bonus, profit sharing, or other remuneration plan, of the insurer, furnish the following information:

a. A brief description of the material features of the plan, each class of persons who will participate therein, the approximate number of persons in each such class, and the basis of such participation.

b. The amounts which would have been distributable under the plan during the last calendar year to (1) each person named in item seven of this schedule, (2) directors and officers as a group, and (3) all other employees as a group, if the plan had been in effect.

c. If the plan to be acted upon may be amended (other than by a vote of the stockholders) in a manner which would materially increase the cost thereof to the insurer or to materially alter the allocation of the benefits as between the groups specified in paragraph "b" of this item, the nature of such amendments should be specified.

Item 9. Pension and retirement plans. If action is to be taken with respect to any pen-

sion or retirement plan of the insurer, furnish the following information:

a. A brief description of the material features of the plan, each class of persons who will participate therein, the approximate number of persons in each such class, and the basis of such participation.

b. State (1) the approximate total amount necessary to fund the plan with respect to past services, the period over which such amount is to be paid, and the estimated annual payments necessary to pay the total amount over such period; (2) the estimated annual payment to be made with respect to current services; and (3) the amount of such annual payments to be made for the benefit of each person named in item seven of this schedule, directors and officers as a group, and employees as a group.

c. If the plan to be acted upon may be amended (other than by a vote of stockholders) in a manner which would materially increase the cost thereof to the insurer or to materially alter the allocation of the benefits as between the groups specified in paragraph "b, 3" of this item, the nature of such amendments should be specified.

Item 10. Options, warrants, or rights. If action is to be taken with respect to the granting or extension of any options, warrants or rights (all referred to herein as "warrants") to purchase stock of the insurer or any subsidiary or affiliate, other than warrants issued to all stockholders on a pro rata basis, furnish the following information:

a. The title and amount of stock called for or to be called for, the prices, expiration dates and other material conditions upon which the warrants may be exercised, the consideration received or to be received by the insurer, subsidiary or affiliate for the granting or extension of the warrants and the market value of the stock called for or to be called for by the warrants, as of the latest practicable date.

b. If known, state separately the amount of stock called for or to be called for by warrants received or to be received by the following persons, naming each such person: (1) Each person named in item seven of this schedule, and (2) each other person who will be entitled to acquire five percent or more of the stock called for or to be called for by such warrants.

c. If known, state also the total amount of stock called for or to be called for by such warrants, received or to be received by all directors and officers of the company as a group and all employees, without naming them.

Item 11. Authorization or issuance of stock.

a. If action is to be taken with respect to the authorization or issuance of any stock of the insurer furnish the title, amount and description of the stock to be authorized or issued.

b. If the shares of stock are other than additional shares of common stock of a class outstanding, furnish a brief summary of the following, if applicable: Dividend, voting liquidation, pre-emptive, and conversion rights, redemption and sinking fund provisions, interest rate and date of maturity.

c. If the shares of stock to be authorized or issued are other than additional shares of common stock of a class outstanding, the commissioner may require financial statements comparable to those contained in the annual report.

Item 12. Mergers, consolidations, acquisitions and similar matters.

a. If action is taken with respect to a merger, consolidation, acquisition, or similar matter, furnish in brief outline the following information:

(1) The rights of appraisal or similar rights of dissenters with respect to any matters to be acted upon. Indicate any procedure required to be followed by dissenting stockholders in order to perfect such rights.

(2) The material features of the plan or agreement.

(3) The business done by the company to be acquired or whose assets are being acquired.

(4) If available, the high and low sales prices for each quarterly period within two years.

(5) The percentage of outstanding shares which must approve the transaction before it is consummated.

b. For each company involved in a merger, consolidation or acquisition, the following financial statements should be furnished:

(1) A comparative balance sheet as of the close of the last two fiscal years.

(2) A comparative statement of operating income and expenses for each of the last two fiscal years and, as a continuation of each statement, a statement of earnings per share after related taxes and cash dividends paid per share.

(3) A pro forma combined balance sheet and income and expenses statement for the last fiscal year giving effect to the necessary adjustments with respect to the resulting company.

Item 13. Restatement of accounts. If action is to be taken with respect to the restatement of any asset, capital, or surplus of the insurer, furnish the following information:

a. State the nature of the restatement and the date as of which it is to be effective.

b. Outline briefly the reasons for the restatement and for the selection of the particular effective date.

c. State the name and amount of each account affected by the restatement and the effect of the restatement thereon.

Item 14. Matters not required to be submitted. If action is to be taken with respect to any matter which is not required to be submit-

ted to a vote of stockholders, state the nature of such matter, the reason for submitting it to a vote of stockholders and what action is intended to be taken by the management in the event of a negative vote on the matter by the stockholders.

Item 15. Amendment of charter, bylaws, or other documents. If action is to be taken with respect to any amendment of the insurer's charter, bylaws or other documents as to which information is not required above, state briefly the reasons for and general effect of such amendment and the vote needed for its approval.

SCHEDULE B

INFORMATION TO BE INCLUDED IN STATEMENTS FILED BY OR ON BEHALF OF A PARTICIPANT (OTHER THAN THE INSURER) IN A PROXY SOLICITATION IN AN ELECTION CONTEST

Item 1. Insurer. State the name and address of the insurer.

Item 2. Identity and background.

a. State the following:

(1) Your name and business address.

(2) Your present principal occupation or employment and the name, principal business and address of any corporation or other organization in which such employment is carried on.

b. State the following:

(1) Your residence address.

(2) Information as to all material occupations, positions, offices or employments during the last ten years, giving starting and ending dates of each and the name, principal business and address of any business corporation or other business organization in which each such occupation, position, office or employment was carried on.

c. State whether or not you are or have been a participant in any other proxy contest involving this company or other companies within the past ten years. If so, identify the principals, the subject matter and your relationship to the parties and the outcome.

d. State whether or not, during the past ten years, you have been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors) and, if so, give dates, nature of conviction, name and location of court, and penalty imposed or other disposition of the case. A negative answer to this subitem need not be included in the proxy statement or other proxy soliciting material.

Item 3. Interest in stock of the insurer.

a. State the amount of each class of stock of the insurer which you own beneficially, directly or indirectly.

b. State the amount of each class of stock of the insurer which you own of record but not beneficially.

c. State with respect to the stock specified in "a" and "b" the amounts acquired within the past two years, the dates of acquisition and the amounts acquired on each date.

d. If any part of the purchase price or market value of any of the stock specified in paragraph "c" is represented by funds borrowed or otherwise obtained for the purpose of acquiring or holding such stock, so state and indicate the amount of the indebtedness as of the latest practicable date. If such funds were borrowed or obtained otherwise than pursuant to a margin account or bank loan in the regular course of business of a bank, broker or dealer, briefly describe the transaction, and state the names of the parties.

e. State whether or not you are a party to any contracts, arrangements or understandings with any person with respect to any stock of the insurer, including but not limited to joint ventures, loan or option arrangements, puts or calls, guarantees against losses or guarantees of profits, division of losses or profits, or the giving or withholding of proxies. If so, name the persons with whom such contracts, arrangements, or understandings exist and give the details thereof.

f. State the amount of stock of the insurer owned beneficially, directly or indirectly, by each of your associates and the name and address of each such associate.

g. State the amount of each class of stock of any parent, subsidiary or affiliate of the insurer which you own beneficially, directly or indirectly.

Item 4. Further matters.

a. Describe the time and circumstances under which you became a participant in the solicitation and state the nature and extent of your activities or proposed activities as a participant.

b. Describe briefly, and where practicable state the approximate amount of, any material interest, direct or indirect, of yourself and of each of your associates in any material transactions since the beginning of the company's last fiscal year, or in any material proposed transactions, to which the company or any of its subsidiaries or affiliates was or is to be a party.

c. State whether or not you or any of your associates have any arrangement or understanding with any person:

(1) With respect to any future employment by the insurer or its subsidiaries or affiliates; or

(2) With respect to any future transactions to which the insurer or any of its subsidiaries or affiliates will or may be a party.

If so, describe such arrangement or understanding and state the names of the parties thereto.

Item 5. Signature. The statement shall be dated and signed in the following manner:

I certify that the statements made in this statement are true, complete, and correct, to the best of my knowledge and belief.

Date _____ (Signature of participant or authorized representative)

[Filed April 15, 1966]

POLICYHOLDER
PROXY SOLICITATION

6.11(523) Application. These rules are applicable to all domestic mutual insurance companies.

6.12(523) Conditions—revocation. No proxy shall be valid unless signed and executed within two months prior to such meeting or election for which said proxy was given, and such proxy shall be limited to thirty days subsequent to the date of such meeting or election, and may be revoked at any time by the policyholder who executed the said proxy.

6.13(523) Filing proxy. All proxies shall be filed with the company at least one day prior to any meeting or election at which they are to be used.

6.14(523) Solicitation by agents—use of funds. Soliciting of proxies by an agent of a company either for personal use, or for the use of officers of the company or for any other person or persons, is forbidden. Company funds shall not be expended in procuring proxies.

These rules are intended to implement chapter 523 of the Code.

[Filed April 15, 1966.]

CHAPTER 7

BENEVOLENT ASSOCIATIONS

7.1 and 7.2 Reserved for future use.

7.3(512A) Organization. Before any new benevolent association shall form or operate in this state, it shall first file with the commissioner for examination and approval one copy of its general plan of organization and operation, an original and two copies of its articles of incorporation, an original and one copy of any bylaws, and two copies of its certificate of membership with application blank. All fees for examination and filing in the office of the commissioner and the secretary of state as prescribed by law must accompany the association's submission.

7.3(1) The plan of organization and operation must set forth in detail any and all fees, dues and assessments to be made against the membership, the intended size and grouping of the membership, the method of member enrollment and procedure for replacement of deceased or left members, the establishment of any reserves or surplus funds, and the intended name and business address of the association. The plan shall also contain a biographical sketch of all organizers and officers and comply with the laws and regulations governing benevolent associations.

7.3(2) If an association is organized or becomes organized under chapter 504A, Code

of Iowa 1966, for the purpose of selling or offering for sale stock to the public of this state such offer must be fully disclosed in the plan of organization and if such offer is exempt from registration the specific exemption must be set forth in the plan.

7.3(3) Reserved for future use.

7.3(4) Except where a public stock offer is made, the plan of operation for associations existing prior to the adoption of this regulation may be contained in its bylaws, however, such plan shall be in accordance with the laws and regulations pertaining to such associations.

7.4(512A) Membership. Each association shall have one or more groups or units consisting of not more than twelve hundred and fifty members per group or unit who may make voluntary contributions to the association for distribution to the beneficiary of a deceased member or to the members as contributions toward expenses incurred by accident or sickness.

7.4(1) If membership in the association is conditioned upon the payment of benefit assessments levied against the members, such loss or cancellation of membership shall take place only if a member, after being notified by mail of such assessment, has failed to remit his contribution within thirty days from the date of mailing of the benefit assessment notice. The association may thereafter serve notice of cancellation of membership which shall provide that if all delinquencies are not paid within ten days after mailing of such notice, all benefits of membership shall be fully terminated.

7.4(2) When a member has voluntarily contributed through benefit assessments an amount equal to the maximum benefits allowed through membership in the association, he shall be allowed to maintain his membership in good standing without further benefit contributions to the association. Such members shall be required to pay expense assessments.

7.5(512A) Fees, dues and assessments. Benevolent associations may make charges against the membership in the form of benefit assessments, enrollment fees or dues and operational expense fees.

7.5(1) An enrollment fee or dues to cover initial expenses may be charged but such fees or dues shall not exceed ten dollars per enrollee membership. If two or more enrollees are in one family, the enrollment fee shall not exceed eight dollars for each person, provided that the family unit enrolls at the same time.

7.5(2) A benefit assessment may be made against the group or unit membership to cover each valid claim presented by a member or the named beneficiary of a deceased member of that unit or group. The benefit portion of the assessment shall not exceed the maximum benefit payable as stated upon the certificate of membership by more than twenty percent of the maximum benefit payable to the claiming member or beneficiary of a member.

7.5(3) In addition to the benefit contribution an expense fee may be added as a separate item to each assessment or as a separate periodical assessment, provided the expense portion of any assessment represents actual costs directly related to the collection and payment of the certificate benefit, and further provided that said fee is identified as an expense charge. Reasonable directors' fees and salaries of officers shall be considered as expenses to the association.

7.5(4) Any assessment levied against the members of a group or unit, other than any reasonable corporate dividends or undivided profits as declared by the board of directors, shall be considered as trust funds belonging to the members of the group and shall not become the property of the association itself, except for that portion of the assessment or contribution added as a separate item for expenses in the collection and distribution of such fund.

7.6(512A) Reserve fund. Any moneys remaining after the payment of a benefit by the association, except the expense contribution and any reasonable corporate dividends or undivided profits, shall be maintained as a reserve fund to be used only for the benefit of the members of the specific group or unit from which it was collected. Such reserve funds shall be used periodically as determined by the board of directors to pay benefits to a claiming member or the beneficiary of a member without making an assessment against the membership of the group or unit.

Any association in existence before January 1, 1967, having presently in use an equally equitable plan for the periodic distribution of the reserve funds, can continue to use such plan provided it is fully disclosed in writing to the commissioner and has been approved by him for use.

7.7(512A) Certificates. In addition to the requirements of section 512A.7 as they concern the membership certificates, said certificate shall also contain sufficient information to inform a member or a member's beneficiary on the proper procedure in the filing of a claim, including any limitations or exclusions affecting the claim.

7.8(512A) Beneficiaries. In the application for membership, the applicant may designate a beneficiary or beneficiaries. If no beneficiary is named or the named beneficiary or beneficiaries do not survive the member, the estate shall become the beneficiary.

Each association shall have forms to provide for the change of beneficiary in the event a member wishes to change or add a beneficiary.

7.9(512A) Mergers. Should the membership of a group or unit fall below fifty percent of its established size as set forth in the plan of operation, such group or unit shall be merged into another existing group in the association and any funds of the depleted membership group shall become the reserve funds of the group into which it is merged.

If the entire membership of an association

falls below sixty percent of its established size as described in its plan of operation, such association must make a bona fide attempt to merge with another such association to protect the interests of the remaining members. Any reserve funds of the merging association shall become the reserve funds of the surviving merged association. If merger attempts are unsuccessful, the association must present a plan of reorganization to the commissioner for his approval.

7.10(512A) Directors and officers. Each benevolent association shall have at least three persons on its board of directors at all times and shall have more than one person act as corporate officer.

7.11(512A) Stockholders. If any benevolent association issues stock, such association shall have its stock owned by more than one stockholder.

7.12(512A) Bookkeeping and accounts. Each benevolent association shall maintain a set of books and records in accordance with normally accepted accounting procedures. Such books and records shall be used to supply the information requested in the annual statement provided each year by the insurance commissioner.

These rules are intended to implement chapter 512A of the Code.

[Filed November 30, 1967]

CHAPTER 8

EXAMINATION AND INVESTMENTS OF INSURANCE COMPANIES

8.1(507) Examination reports. Upon the completion of an examination a copy of the report will be furnished the company, association or society examined, whereupon the company, association or society will have ten days in which to determine whether or not it will demand a hearing before the commissioner of insurance. If a hearing is desired, then and in that event the company, association or society shall, within said ten days file with the commissioner of insurance a written application, attaching thereto the specific grounds upon which a hearing is desired. Within a reasonable time after the receipt of said application, the commissioner will fix a date for the hearing and notify the company, association or society thereof. Upon the completion of the hearing, or as soon as convenient thereafter, the commissioner shall render his decision, either orally or in writing at his discretion and file said report as part of the records in his department.

8.2(511) Life companies—investment in preferred stocks. The phrase "preferred dividend requirements as of the date of acquisition" is construed to include the dividend requirements of a new issue. Consequently, a new preferred issue will qualify if the net earnings of the corporation for each of the five preceding years have been not less than one and one-

half times the sum of the annual fixed charges, contingent interest and the annual preferred dividend requirements including the new issue.

8.3(515) Reinsurance contracts. No credit will be given the ceding insurer for reinsurance made, ceded, renewed or otherwise becoming effective after July 1, 1940, unless the reinsurance agreements (treaty, facultative or otherwise) are with reinsurers authorized to do business in the state of Iowa, and substantially provide, or are amended by a supplemental contract to read in substance as follows:

In consideration of the continuing benefits to accrue hereunder to the assuming insurer, the assuming insurer hereby agrees that, as to all reinsurance made, ceded, renewed or otherwise becoming effective after July 1, 1940, the reinsurance shall be payable by the assuming insurer on the basis of the liability of the ceding insurer under the contract or contracts reinsured without diminution because of the insolvency of the ceding insurer.

8.4(515) Premium tax. The fact that the companies choose to call a stipulated amount a "policy fee" and do not include it under the term of "premium" would not have the effect of exempting this income from taxation. It is most assuredly a part of the premium or income received from policyholders for business done in Iowa and thus subject to taxation.

CHAPTER 9

AGENTS LICENSING

9.1(522) License lost through merger. Since the statute provides that a license must be issued to every agent that transacts business for an insurance company that new license will have to be issued for the agents of the company that lost its identity in the new company.

9.2(522) Agents rebates illegal. A policyholder pays a premium in full by promissory note. Incorporated in the note is a clause whereby the insured is to pay a certain rate of interest. The note becomes due and the face amount of the note is paid, but not the interest. The policyholder pays the note in full, but does not pay the interest, the agent cancels the note and returns it to the policyholder, and the agent pays the interest himself.

The above transaction clearly comes within the prohibition found in section 308.23 of the Code, and constitutes rebating.

9.3(522) Agent license revocation. The commissioner will revoke the license of any agent who is found guilty of inducing any individual to lapse or cancel a policy of one insurer in order that such individual procure a policy of another insurer which in any way would operate to the prejudice of the interests of the individual.

CHAPTER 10

Reserved for future use

CHAPTER 11

INSURANCE HOLDING COMPANY
SYSTEMS

11.1(521A) Purpose. The purpose of these rules is to set forth rules and procedural requirements which the commissioner deems necessary to carry out the provisions of chapter 521A of the Code. The information called for by these rules is hereby declared to be necessary and appropriate in the public interest and for the protection of policyholders and shareholders in this state.

11.2(521A) Definitions. As used in these rules unless otherwise required by the context:

11.2(1) "Executive officer" means any individual charged with active management and control in an executive capacity (including a president, vice-president, treasurer, secretary, controller, and any other individual performing functions corresponding to those performed by the foregoing officers) of a person, whether incorporated or unincorporated.

11.2(2) "Foreign insurer" shall include an alien insurer except where clearly noted otherwise.

11.2(3) "Ultimate controlling person" means that person which is not controlled by any other person.

11.2(4) Other terms found in these rules and in section 521A.1 of the Code entitled "Definitions" shall retain the meaning as found in such section.

11.3(521A) Subsidiaries of domestic insurers. The authority to invest in subsidiaries under section 521A.2(3) is in addition to any authority to invest in subsidiaries which may be contained in any other provision of the insurance code.

An investment by a subsidiary under section 521A.2(3,c) of the Code may cause the total investment of the insurer to exceed any of the limitations contained in any of the individual sections referred to in paragraph "c" provided that it does not exceed the aggregate amount which could be invested under all of those sections with respect to the type of asset involved.

11.4(521A) Control acquisition of domestic insurer. Any person required to file a statement pursuant to section 521A.3 of the Code entitled "Acquisition of control of or merger with domestic insurer," shall furnish all the information requested on FORM A hereto annexed and hereby made a part of these rules.

11.4(1) If the person being acquired is a "domestic insurer" solely because of the provisions of section 521A.3(1,a) of the Code, the name of the domestic insurer on the cover page

should be as follows: "ABC Insurance Company, a Subsidiary of XYZ Holding Company."

11.4(2) Where a section 521A.3(1,a) of the Code insurer is being acquired, references to "the insurer" contained in FORM A shall refer to both the domestic subsidiary insurer and the person being acquired.

11.4(3) The applicant shall promptly advise the commissioner of any changes in the information so furnished arising subsequent to the date upon which such information was furnished but prior to the commissioner's disposition of the application.

11.4(4) Exemptions. No statement need be filed and no approval by the commissioner is required pursuant to section 521A.3 of the Code if the company being acquired is considered a domestic insurer solely by reason of section 521A.3(1,a) of the Code and provided such acquisition is subject to disclosure requirements in said company's state of domicile substantially similar to those imposed by section 521A.3.

11.5(521A) Registration of insurers. Any insured required to file a statement pursuant to section 521A.4 of the Code shall furnish all the information required on FORM B hereto annexed and hereby made a part of these rules.

11.5(1) An amendment to FORM B shall be filed within fifteen days after the end of any month in which the following occurs:

a. There is a change in the control of the registrant, in which case the entire FORM B shall be made current;

b. There is a material change in the information given in Item 5 or Item 6 of FORM B in which case the respective item shall be made current.

11.5(2) Any other amendment to FORM B shall be filed within ninety days after the end of each fiscal year of the ultimate controlling person of the insurance holding company system. Such amendment shall make current all information in FORM B.

11.6(521A) Alternative and consolidated registrations. Any authorized insurer may file a registration statement on behalf of any affiliated insurer or insurers which are required to register under section 521A.4. A registration statement may include information regarding any insurer in the insurance holding company system even if such insurer is not authorized to do business in this state. In lieu of filing a registration statement on FORM B, the authorized insurer may file a copy of the registration statement or similar report which it is required to file in its state of domicile, provided:

1. The statement or report contains substantially similar information required to be furnished on FORM B; and

2. The filing insurer is the principal insurance company in the insurance holding company system.

11.6(1) The question of whether the filing insurer is the principal insurance company in the insurance holding company system is a question of fact and an insurer filing a registration statement or report in lieu of FORM B on behalf of an affiliated insurer shall set forth a simple statement of facts which will substantiate the filing insurer's claim that it, in fact, is the principal insurer in the insurance holding company system.

11.6(2) With the prior approval of the commissioner, an unauthorized insurer may follow any of the procedures which could be done by an authorized insurer under 11.6(521A) above.

Any insurer may take advantage of the provisions of section 521A.4(7) or 521A.4(8) without obtaining the prior approval of the commissioner. The commissioner, however, reserves the right to require individual filings if he deems such filings necessary in the interest of clarity, ease of administration or the public good.

11.7(521A) Exemptions. A foreign or alien insurer otherwise subject to 521A.4 of the Code, shall not be required to register pursuant to that section if it is admitted in the domiciliary state of the principal insurer [as that term is defined in 11.6(1)] and in said state if subject to disclosure requirements and standards adopted by the statute or rules and regulations which are substantially the same as those contained in section 521A.4 of the Code, provided, the commissioner may require a copy of the registration statement or other information filed with the domiciliary state; or until July 1, 1971.

11.7(1) The state of entry of an alien insurer shall be deemed to be its domiciliary state for the purposes of these rules.

11.7(2) Any insurer not otherwise exempt or excepted from section 521A.4 may apply for an exemption from the requirements of said section by submitting a statement to the commissioner setting forth its reasons for being exempt.

11.8(521A) Disclaimers and termination of registration. A disclaimer of affiliation or a request for termination of registration claiming that a person does not, or will not upon the taking of some proposed action, control another person (hereinafter referred to as the "subject") shall contain the following information:

11.8(1) The number of authorized, issued and outstanding voting securities of the subject;

11.8(2) With respect to the person whose control is denied and all affiliates of such person, the number and percentage of shares of

the subject's voting securities which are held of record or known to be beneficially owned, and the number of such shares concerning which there is a right to acquire, directly or indirectly;

11.8(3) All material relationships and bases for affiliation between the subject and the person whose control is denied and all affiliates of such person;

11.8(4) A statement explaining why such person should not be considered to control the subject.

A request for termination of registration shall be deemed to have been granted unless the commissioner, within thirty days after he receives the request, notifies the registrant otherwise.

11.9(521A) Extraordinary dividends and other distributions. Requests for approval of extraordinary dividends or any other extraordinary distribution to shareholders shall include the following:

11.9(1) The date established for payment of the dividend;

11.9(2) A statement as to whether the dividend is to be in cash or other property and, if in property, a description thereof of its cost, and its fair market value together with an explanation of the basis for valuation;

11.9(3) The amounts and dates of all dividends (including regular dividends) paid within the period of twelve consecutive months ending on the date fixed for payment of the proposed dividend for which approval is sought and commencing on the day after the same day of the same month in the last preceding year;

11.9(4) A balance sheet and statement of income for the period intervening from the last annual statement filed with the commissioner and the end of the month preceding the month in which the request for dividend approval is submitted;

11.9(5) A brief statement as to the effect of the proposed dividend upon the insurer's surplus and the reasonableness of surplus in relation to the insurer's outstanding liabilities and the adequacy of surplus relative to the insurer's financial needs.

11.9(6) The payment of an extraordinary dividend by an insurer whose total liabilities, as calculated for National Association of Insurance Commissioners annual statement purposes, are less than ten percent of its assets both before and after payment thereof is deemed automatically approved, provided such dividend is paid only from earned surplus. The insurer, however, shall give written notice to the commissioner of the declaration pursuant to section 521A.4(4).

FORM A

STATEMENT REGARDING THE
ACQUISITION OF CONTROL OF OR MERGER WITH A DOMESTIC INSURER

 Name of Domestic Insurer

BY

 Name of Acquiring Person (Applicant)

 Filed with the Insurance Department of _____
 (State of domicile of insurer being acquired)

Dated: _____, 19____

 Name, Title, Address and Telephone Number of Individual to Whom Notices and Correspondence
 Concerning This Statement Should be Addressed:

FORM A

Item 1. Insurer and method of acquisition.

State the name and address of the domestic insurer to which this application relates and a brief description of how control is to be acquired.

Item 2. Identity and background of the applicant.

(a) State the name and address of the applicant seeking to acquire control over the insurer.

(b) If the applicant is not an individual, state the nature of its business operations for the past five years or for such lesser period as such person and any predecessors thereof shall have been in existence. Briefly describe the business intended to be done by the applicant and the applicant's subsidiaries.

(c) Furnish a chart or listing clearly presenting the identities of the interrelationships among the applicant and all affiliates of the applicant. No affiliate need be identified if its total assets are equal to less than one-half of one percent of the total assets of the ultimate controlling person affiliated with the applicant. Indicate in such chart or listing the percentage of voting securities of each such person which is owned or controlled by the applicant or by any other such person. If control of any person is maintained other than by the ownership or control of voting securities, indicate the basis of such control. As to each person specified in such chart or listing indicate the type of organization (e.g., corporation, trust, partnership) and the state or other jurisdiction of domicile. If court proceedings looking toward a reorganization or liquidation are pending with respect to any such person, indicate which person, and set forth the title of the court, nature of proceedings and the date when commenced.

Item 3. Identity and background of individuals associated with the applicant.

State the following with respect to (1) the applicant if he is an individual or (2) all persons who are directors, executive officers or owners of ten percent or more of the voting securities of the applicant if the applicant is not an individual:

(a) Name and business address;

(b) Present principal business activity occupation or employment including position and office held and the name, principal business and address of any corporation or other organization in which such employment is carried on;

(c) Material occupations, positions, offices or employments during the last five years, giving the starting and ending dates of each and the name, principal business and address of any business corporation or other organization in which each such occupation, position, office or employment was carried on; if any such occupation, position, office or employment required licensing by or registration with any federal, state or municipal governmental agency, indicate such fact, the current status of such licensing or registration, and an explanation of any surrender, revocation, suspension or disciplinary proceedings in connection therewith.

(d) Whether or not such person has ever been convicted in a criminal proceeding (excluding minor traffic violations) during the last ten years and, if so, give the date, nature of conviction, name and location of court, and penalty imposed or other disposition of the case.

Item 4. Nature, source and amount of consideration.

(a) Describe the nature, source and amount of funds or other considerations used or to be

used in effecting the merger or other acquisition of control. If any part of the same is represented or is to be represented by funds or other consideration borrowed or otherwise obtained for the purpose of acquiring, holding, or trading securities, furnish a description of the transaction, the names of the parties thereto, the relationship, if any, between the borrower and the lender, the amounts borrowed or to be borrowed, and copies of all agreements, promissory notes and security arrangements relating thereto.

(b) Explain the criteria used in determining the nature and amount of such consideration.

(c) If the source of the consideration is a loan made in the lender's ordinary course of business and if the applicant wishes the identity to remain confidential, he must specifically request that the identity be kept confidential.

Item 5. Future plans for insurer.

Describe any plans or proposals which the applicant may have to declare an extraordinary dividend, to liquidate such insurer, to sell its assets to or merge it with any person or persons or to make any other material change in its business operations or corporate structure or management.

Item 6. Voting securities to be acquired.

State the number of shares of the insurer's voting securities which the applicant, its affiliates and any person listed in Item 3 plan to acquire, and the terms of the offer, request, invitation, agreement or acquisition, and a statement as to the method by which the fairness of the proposal was arrived at.

Item 7. Ownership of voting securities.

State the amount of each class of any voting security of the insurer which is beneficially owned or concerning which there is a right to acquire beneficial ownership by the applicant, its affiliates or any person listed in Item 3.

Item 8. Contracts, arrangements, or understandings with respect to voting securities of the insurer.

Give a full description of any contracts, arrangements or understandings with respect to any voting security of the insurer in which the applicant, its affiliates or any persons listed in Item 3 is involved, including but not limited to transfer of any of the securities, joint ventures, loan or option arrangements, puts or calls, guarantees of loans, guarantees against loss or guarantees of profits, division of losses or profits, or the giving or withholding of proxies. Such description shall identify the persons with whom such contracts, arrangements or understandings have been entered into.

Item 9. Recent purchases of voting securities.

Describe any purchases of any voting securities of the insurer by the applicant, its affiliates or any person listed in Item 3 during the twelve calendar months preceding the filing of this statement. Include in such description the dates of purchase, the names of the purchasers, and the consideration paid or agreed to be paid therefor. State whether any such shares so purchased are hypothecated.

Item 10. Recent recommendations to purchase.

Describe any recommendations to purchase any voting security of the insurer made by the applicant, its affiliates or any person listed in Item 3, or by anyone based upon interviews or at the suggestion of the applicant, its affiliates or any person listed in Item 3 during the twelve calendar months preceding the filing of this statement.

Item 11. Agreements with broker-dealers.

Describe the terms of any agreement, contract or understanding made with any broker-dealer as to solicitation of voting securities of the insurer for tender, and the amount of any fees, commissions or other compensation to be paid to broker-dealer, with regard thereto.

Item 12. Financial statements and exhibits.

(a) Financial statements and exhibits shall be attached to this statement as an appendix, but list under this item the financial statements and exhibits so attached.

(b) The financial statements shall include the annual financial statements of the persons identified in Item 2(c) for the preceding five fiscal years (or for such lesser period as such applicant and its affiliates and any predecessors thereof shall have been in existence), and similar information covering the period from the end of such person's last fiscal year, if such information is available. Such statements may be prepared on either an individual basis, or, unless the commissioner otherwise requires, on a consolidated basis if such consolidated statements are prepared in the usual course of business.

The annual financial statements of the applicant shall be accompanied by the certificate of an independent public accountant to the effect that such statements present fairly the financial position of the applicant and the results of its operations for the year then ended, in conformity with generally accepted accounting principles or with requirements of insurance or other accounting principles prescribed or permitted under law. If the applicant is an insurer which is actively engaged in the business of insurance, the financial statements need not be certified, provided they are based on the Annual Statement of such person filed with the insurance department of the person's domiciliary state and are in accordance with the requirements of insurance or other accounting principles prescribed or permitted under the law and regulations of such state.

(c) File as exhibits copies of all tender offers for, requests or invitations for, tenders of, exchange offers for, and agreements to acquire or exchange any voting securities of the insurer and (if distributed) of additional soliciting material relating thereto; any proposed employment, consultation, advisory or management contracts concerning the insurer; annual reports to the stockholders of the insurer and the applicant for the last two fiscal years; and any additional documents or papers required by Form A or regulations sections 0.04 and 0.06.

Item 13. Signature and certification.

Signature and certification of the following form:

SIGNATURE

Pursuant to the requirements of 521A.3 of the Code and Regulation 3.01,

_____ has caused this application to be duly signed on its behalf in the City of _____ and State of _____, on the _____ day of _____, 19_____

(SEAL)

(Name of Applicant)

BY

(Name)

(Title)

Attest:

(Signature of Officer)

(Title)

CERTIFICATION

The undersigned deposes and says that he has duly executed the attached application dated _____, 19_____, for and on behalf of _____; that he is the _____ of such company, and that he is authorized to execute and file such instrument. Deponent further says that he is familiar with such instrument and the contents thereof, and that the facts therein set forth are true to the best of his knowledge, information and belief.

(Signature) _____

(Type or print name beneath) _____

FORM B

INSURANCE HOLDING COMPANY SYSTEM REGISTRATION STATEMENT

Filed with the Insurance Department of the State of _____
By _____

Name of Registrant

On Behalf of the Following Insurance Companies

Name

Address

Date: _____, 19_____

Name, Title, Address and Telephone Number of Individual to Whom Notices and Correspondence Concerning This Statement Should Be Addressed:

FORM B

Item 1. Identity and control of registrant.

Furnish the exact name of each insurer registering or being registered (hereinafter called "the Registrant"), the home office address and principal executive offices of each; the date on which each Registrant became part of the insurance holding company system; and the method(s) by which control of each Registrant was acquired and is maintained.

Item 2. Organizational chart.

Furnish a chart or listing clearly presenting the identities of and interrelationships among all affiliated persons within the insurance holding company system. No affiliate need be shown if its total assets are equal to less than one-half of one percent of the total assets of the ultimate controlling person within the insurance holding company system. The chart or listing should show the percentage of each class of voting securities of each affiliate which is owned, directly or indirectly, by another affiliate. If control of any person within the system is maintained other than by the ownership or control of voting securities, indicate the basis of such control. As to each person specified in such chart or listing indicate the type of organization (e.g., corporation, trust, partnership) and the state or other jurisdiction of domicile.

Item 3. The ultimate controlling person.

As to the ultimate controlling person in the insurance holding company system furnish the following information:

- (a) Name.
- (b) Home Office Address.
- (c) Principal executive office address.
- (d) The organizational structure of the person, i.e., corporation, partnership, individual, trust, etc.
- (e) The principal business of the person.
- (f) The name and address of any person who holds or owns ten percent or more of any class of voting security, the class of such security, the number of shares held of record or known to be beneficially owned, and the percentage of class so held or owned.
- (g) If court proceedings looking toward a reorganization or liquidation are pending, indicate the title and location of the court, the nature of proceedings and the date when commenced.

Item 4. Biographical information.

Furnish the following information for the directors and executive officers of the ultimate controlling person: The individual's name and address, his principal occupation and all offices and positions held during the past five years, and any conviction of crimes other than minor traffic violations during the past ten years.

Item 5. Transactions, relationships and agreements.

- (a) Briefly describe the following agreements in force, relationships subsisting, and transactions currently outstanding between the Registrant and its affiliates:
 - (1) Loans, other investments, or purchases, sales or exchanges of securities of the affiliates by the Registrant or of the Registrant by its affiliates;
 - (2) Purchases, sales or exchanges of assets;
 - (3) Transactions not in the ordinary course of business;
 - (4) Guarantees or undertakings for the benefit of an affiliate which result in an actual contingent exposure of the Registrant's assets to liability, other than insurance contracts entered into in the ordinary course of the Registrant's business;
 - (5) All management and service contracts and all cost-sharing arrangements, other than cost allocation arrangements based upon generally accepted accounting principles; and
 - (6) Reinsurance agreements covering all or substantially all of one or more lines of insurance of the ceding company.

No information need be disclosed if such information is not material. Sales, purchases, exchanges, loans or extensions of credit or investments involving one-half of one percent or less of the Registrant's admitted assets as of the 31st day of December next preceding shall not be deemed material.

The description shall be in a manner as to permit the proper evaluation thereof by the commissioner, and shall include at least the following: The nature and purpose of the transaction; the nature and amounts of any payments or transfers of assets between the parties; the identity of all parties to such transaction; and relationship of the affiliated parties to the Registrant.

Item 6. Litigation or administrative proceedings.

A brief description of any litigation or administrative proceedings of the following types, either then pending or concluded within the preceding fiscal year, to which the ultimate controlling person or any of its directors or executive officers was a party or of which the property of any such person is or was the subject; give the names of the parties and the court or agency in which such litigation or proceeding is or was pending:

- (a) Criminal prosecutions or administrative proceedings by any government agency or authority which may be relevant to the trustworthiness of any party thereto; and
- (b) Proceedings which may have a material effect upon the solvency or capital structure

of the ultimate holding company including, but not necessarily limited to, bankruptcy, receiver-ship or other corporate reorganizations.

Item 7. Financial statements and exhibits.

(a) Financial statements and exhibits should be attached to this statement as an appendix, but list under this item the financial statements and exhibits so attached.

(b) The financial statements shall include the annual financial statements of the ultimate controlling person in the insurance holding company system as of the end of the person's latest fiscal year.

If at the time of the initial registration, the annual financial statements for the latest fiscal year are not available, annual statements for the previous fiscal year may be filed and similar financial information shall be filed for any subsequent period to the extent such information is available. Such financial statements may be prepared on either an individual basis, or unless the commissioner otherwise requires, on a consolidated basis if such consolidated statements are prepared in the usual course of business.

Unless the commissioner otherwise permits, the annual financial statements shall be accompanied by the certificate of an independent public accountant to the effect that such statements present fairly the financial position of the ultimate controlling person and the results of its operations for the year then ended, in conformity with generally accepted accounting principles or with requirements of insurance or other accounting principles prescribed or permitted under law. If the ultimate controlling person is an insurer which is actively engaged in the business of insurance, the annual financial statements need not be certified, provided they are based on the Annual Statement of such insurer filed with the insurance department of the insurer's domiciliary state and are in accordance with requirements of insurance or other accounting principles prescribed or permitted under the law and regulations of such state.

(c) Exhibits shall include copies of the latest annual reports to shareholders of the ultimate controlling person and proxy material used by the ultimate controlling person; and any additional documents or papers required by Form B or regulations sections 0.04 and 0.06.

SIGNATURES

Signatures and certification of the form as follows:

SIGNATURE

Pursuant to the requirements of 521A.4 of the Code and Regulation No. 4.01, the Registrant has caused this registration statement to be duly signed on its behalf in the City of _____ and State of _____ on the _____ day of _____, 19_____.

(SEAL)

(Name of Registrant)

By _____
(Name) (Title)

Attest:

(Signature of Officer)

(Title)

CERTIFICATION

The undersigned deposes and says that he has duly executed the attached registration statement dated _____, 19_____, for and on behalf of _____; that

(Name of Company)

he is the _____ of such company, and that he has authority to execute and

(Title of Officer)

file such instrument. Deponent further says that he is familiar with such instrument and that the facts therein set forth are true to the best of his knowledge, information and belief.

(Signature) _____

(Type or print name beneath) _____

[Filed November 19, 1970]

CHAPTERS 12 to 15
Reserved for future use

CHAPTER 16
MISCELLANEOUS

16.1(508, 515) Notes taken for insurance. No sale or disposition of first year premium notes by either the company or its agents prior to

the issuance or delivery of such policy, and prior to the passing of the consideration therefor, shall be made.

Either one of the above-mentioned practices is considered, by this department, to be contrary to the best interests of the insuring public, and will, in the future, be considered as just and sufficient cause for the cancella-

tion or suspension of the license of any agent engaging therein.

16.1(1) A contract of insurance may specifically provide for a specific term of duration, in which event the contract automatically expires at the end of that term, without the giving of any notice. For illustration, a policy written for a term of one year with the premium paid in advance automatically expires at the end of the year.

16.1(2) However, in the event no definite term is fixed in the policy, or if the policy is for a definite period with premium payments made in installments at shorter intervals, or if the term of the policy is fixed and a promissory note is given for the entire premium, said note made payable at a shorter period, then before the policy can be legally forfeited or suspended for nonpayment of the premium when due or on the installment dates, or on or after the maturity of the note, a thirty-day notice must be given. To that extent the company is required to give notice, otherwise no notice is required.

16.2 Investment of funds.

Ruling No. R21. By Department

The Forty-first General Assembly of Iowa amended section 8737 (511.8) of the Code of 1924, relating to the investment of funds by life insurance companies organized in this state, by adding to paragraph one (1) of said section the following:

"Or federal farm loan bonds issued under the Act of Congress, approved July 17, 1916."

Doubt has arisen in the minds of company officials as to whether or not the amendment in question authorizes life insurance companies organized in Iowa to invest their funds in bonds issued by joint stock land banks.

In a written opinion of the Attorney General of Iowa, bearing date May 25, 1925, it is held that, inasmuch as joint stock land banks were created under the Act of Congress approved July 17, 1916, bonds issued by such banks are included in the amendment aforesaid.

Therefore, it is the ruling of this department that such bonds are a legal investment for life insurance companies organized in this state. However, said amendment is not effective until July 4, 1925, and until said date no such investments should be made.

16.3(508, 515) Medical examinations. No life insurance policy, except those specifically excepted by section 8671 (508.28) and group insurance shall be issued in the state of Iowa unless based upon a medical examination of the applicant within such time as to give the company a reasonable opportunity to pass upon the same. A violation of this ruling will subject the company, association or society guilty thereof to a suspension of its certificate of authority to transact business in this state.

16.4(508, 515) Computation of reserves. Iowa life insurance companies may report the non-admitted excess item to this department on

the basis of the true reserve instead of the mean reserve as has been the practice in the past. Under the true reserve system there will be no excess excepting in the case of indebtedness in excess of policy liabilities. The true reserve system eliminates all excess on account of due and deferred premiums, but there may be an excess equal to or in excess of the loading depending upon what premium the note represents, and how long it has been running when a premium note is taken for the gross premiums or when there is an overloan.

This concession is made to Iowa companies with the conviction that it removes many of the defects and disadvantages of the present practice of requiring the excess of the mean reserve.

As a corollary to the proposed system of determining this excess item, the business of the company must be reported upon a strictly paid for basis.

This department will not require that policies be lapsed if premium is not paid within a limited time after the due date, but no credit for an uncollected premium may be taken if more than sixty days past due, unless a premium note of the proper form has been taken therefor.

16.5(508, 515) Rebating. The acceptance at par of any security given in payment for insurance premium, which security was actually worth less than its par value at the time of such acceptance, would constitute an indirect rebate to the person from whom such securities were so accepted.

16.6(508, 515) Regulation of insurance. Certain insurance companies authorized by this department to transact business in this state have entered into contracts with business institutions not of a similar nature, whereby it is agreed that the company will issue policies to such institutions for issuance by such institutions to their patrons, in consideration of the patrons entering into some agreement for the purchase of commodities of the institution, or in payment of a small premium combined with the purchase of some commodity, the institution paying the net premium thereon.

Under the plan above set forth, it is impossible to ascertain whether the insurance is offered as an inducement to purchase, or the purchase is an inducement to the insurance. It appears to this department that one is an inducement to the other, and therefore an inducement promising returns and profits in connection with the sale of insurance contrary to section 8624 (506.9).

Further, it appears to this department that such a plan would not be conducive to sound insurance principles and the best interests of the insuring public, in that it would tend to discriminate between persons of the same class and therefore be contrary to public policy.

No contract of insurance shall be approved for use in this state, nor shall any contract of insurance be issued to a resident of this

state, if such contract is to be used or is being used in connection with any plan similar to that stated herein, unless the company shall first submit such plan to the commissioner of insurance and receive his approval thereto.

Nothing herein contained shall be construed to prohibit a business institution from offering to its patrons insurance at a specific premium to be paid wholly by such patron, provided the institution shall appoint a person in their employ as agent and secure a license for such person from this department.

Any violation of this ruling brought to the attention of this department shall be deemed cause for revocation of the license of the company so violating.

16.7(508, 515) Furriers customers policies. The attention of this department has been called to the practice of companies issuing through their marine departments the so-called "furriers customers policies," wherein a master contract is issued to the furrier designated as the assured, and individual certificates are by him issued to the customers, together with an annual storage and/or repair agreement.

The contracts submitted provide that such certificate be issued only in connection with such annual storage agreement, with an agreement for repairs, cleaning, altering, etc., or with a conditional sales contract, and, further, that any loss incurred thereunder shall be adjustable with the furrier and customer, or repaired by the furrier at a cost to the company.

It is the opinion of this department that the requirement that such contract be issued only in connection with the agreement above set forth is in violation of Ruling C2 [Regulation No. 14] recently issued by this department; and, further, that the agreement whereby the loss is adjustable at the option of the company with the furrier without considering the rights of the customer, and permitting the furrier to profit by the loss is not conducive to sound insurance and is contrary to public policy.

We are further of the opinion that the issuance of such a contract with certificates by a furrier, where such furrier holds a conditional sales contract, or agreement, is not contrary to public policy in that the furrier has a specific interest in the agreement, and contracts of this type may be issued under such circumstances, provided the terms of the contract stipulate that the loss is payable to the furrier and the customer as their interests appear, is not made subject to any other agreement, and provides that the term of the contract shall not extend beyond the period set forth in the conditional sales contract.

Note: The furriers customers form may be modified to meet the department's requirements and overcome objections herein contained.

16.8(508, 515) Expiration date of policy vs. charter expiration date. The mere fact that a corporate contract may extend beyond the term of the life of the corporation does not destroy it. We believe as a matter of public policy, insurance corporations frequently enter into such contracts. This is graphically illustrated in the case of a life insurance contract issued by a company with a limited corporate period. It has been held that the renewal of articles of incorporation is a continuation of the original corporate period which lends support to the proposition that it is within the public interest that contracts of this nature be permitted.

16.9(508, 515) Capital stock requirements for writing multiple lines. A stock, fire or casualty company with a paid-up capital of less than \$300,000 may write full multiple lines, if possessed of surplus to policyholders of \$500,000.

16.10(508, 515) Assessable and nonassessable policies. The two plans are not compatible with each other and are unfairly discriminatory within the intent and meaning of chapters 259 and 260, Acts of the 53rd General Assembly.

If there were some means through which the surplus funds of an association could be legally segregated between assessable and nonassessable policies, it might be possible to avoid this discrimination. However, the present statutes appear to make such funds available to the payment of the rightful claims of all policyholders of the association.

16.11(508, 515) Tax on gross premiums—life companies. In determining the gross amount of premiums to be taxed hereunder, there shall be excluded:

(1) All premiums returned to policyholders or annuitants during the preceding calendar year, except cash surrender values.

(2) All dividends that, during said year, have been paid in cash or applied in reduction of premiums or left to accumulate to the credit of policyholders or annuitants.

16.12(508, 515) Loans to officers, directors, employees, etc. No insurance company or association of any kind, domiciled in the state of Iowa, shall loan any portion of its funds to an officer, director, stockholder, employee or any relative or immediate member of the family of an officer or director.

The provisions of Code sections 508.8 and 511.12 shall likewise be applicable to fire and casualty companies.

16.13(508, 515) Single maximum risk—fidelity and surety risks. No insurance company is permitted under the limitations of section 515.49 to expose itself to any risk on a fidelity or surety bond in excess of ten percent of its surplus to policyholders, unless such excess shall be reinsured in accordance with the provisions of the statute.

[Filed November 21, 1963]

STATE OF IOWA
SURPLUS LINES AFFIDAVIT

No. _____
Each agent should number
his affidavits consecutively

_____ of _____, Iowa,
being duly sworn on oath, deposes and says:

That affiant is a resident insurance agent, qualified and licensed under the provisions of Chapter 522, Code of Iowa to write the kind of insurance herein referred to.

That affiant has made a diligent effort to place this insurance in authorized insurers and has either exhausted the capacity of authorized insurers or has been unable to obtain the desired coverage.

That the amounts of insurance shown are required for this risk:

1. Name and address of risk: _____
2. Perils insured against: _____
3. Amount of insurance procurable from licensed insurers: _____
4. Additional amount of coverage necessary and names and addresses of insurers: _____
5. Licensed companies who refused to accept risk: _____

That affiant agrees to escrow all amounts due the State of Iowa for premium tax on this insurance and understands that failure to pay said tax on or before March 31 of the next calendar year will result in the loss of any and all agent's licenses issued by the Iowa Insurance Department.

(Agent)

(Address)

(Agent's Qualification no.)

Subscribed and sworn to before me this _____ day of _____, 19____

SL-163

(Notary Public)

[Filed August 1, 1963]

The following report must be filed with the
Commissioner of Insurance, State of Iowa, on or before March 1, 19____.

REPORT OF SURPLUS LINES INSURANCE

For the Year Ending December 31, 19____.

Agent _____ Business Address _____ Date _____

Affidavit No. and Date*	Name of Insured	Name of Insurer or Insurers	Contract No.	Term and Effective Date	Premiums Written	Premiums Refunded
(1)	(2)	(3)	(4)	(5)	(6)	(7)

Make checks payable to: Commissioner of Insurance, State of Iowa

- (a) Premiums written (total of Column 6) \$ _____
- (b) Premiums refunded (total of Column 7) \$ _____
- (c) Difference between (a) and (b) \$ _____
- (d) Amount enclosed (2% of (c)) \$ _____

*Affidavits are to be numbered consecutively.

I, _____, being duly sworn, say and depose on oath, that I have examined the matter reported in this return, and that the amounts set forth therein are correct to the best of my knowledge and belief.

Subscribed and sworn to before me this _____ day of _____

SL263

(Notary Public)

[Filed August 1, 1963]

CHAPTER 17
SECURITIES

17.1(502) General. On and after July 4, 1963, an applicant for registration as securities dealer, issuer-dealer or salesman will be required to pass a written examination to determine the skill, competency, and knowledge of such applicant in respect to general securities matters and the Iowa securities law.

17.2(502) Composition. The examination shall be composed of two parts:

1. Part 1 shall cover general securities subject matter.
2. Part 2 shall cover the Iowa securities law.

17.3(502) Exemptions—Parts 1 and 2. The following classes of persons shall be exempt from parts 1 and 2 of the examination:

1. Dealer or issuer-dealer applicants who have been registered as a dealer or issuer-dealer under the Iowa securities law previous to July 4, 1963.
2. Salesman applicants who have been registered as a salesman under the Iowa securities law previous to July 4, 1963.
3. Salesman applicants who have been registered as a dealer under the Iowa securities law previous to July 4, 1963.

17.4(502) Exemptions—Part 1. The following classes of persons shall be exempt from part 1 of the examination:

1. Applicants who have passed the New York Stock Exchange or National Association of Securities Dealers examination given on or after July 1, 1963.
2. Applicants who have passed an examination of essentially identical subject matter in another state, provided that the passing score attained on such examination was at least as high as required by this department.

17.5(502) Dealer applicants. In the case of dealer applicants, the following classes of persons shall be subject to examination:

1. The principal of a sole proprietorship.
2. General partners of a partnership.
3. The executive officers of a corporation,

provided that if it can be shown to the satisfaction of the commissioner of insurance that certain corporate officers are not active in the conduct of the applicant's business in Iowa, such officers shall not be required to take the examination.

17.6(502) Issuer-dealers—general. The executive officer (or officers) of an issuer-dealer who will have charge of and supervise the issuance of his company's securities shall be subject to examination.

17.6(1) Issuer-dealers—waiver of examination. Issuer-dealer examination shall be subject to waiver if it can be demonstrated to the satisfaction of the commissioner of insurance that, owing to the nature of the securities issue under consideration or the proposed manner of distribution, the public interest would not be served by requiring that an examination be taken.

17.6(2) Issuer-dealers—salesmen. Nothing contained in this rule shall be construed to exempt from examination securities salesmen appointed by an issuer-dealer.

17.7(502) Passing score. The passing score on each part of the examination shall be seventy percent for salesmen and issuer-dealers and eighty percent for dealers.

17.8(502) When given. The examination shall be given at such times and places as the commissioner of insurance may determine.

17.9(502) Retakes. Applicants who fail any part of the examination may take the examination again, but upon a second failure they must wait a minimum period of three months before again taking the examination. Upon a third failure they must wait a further minimum period of one year before again taking the examination.

17.10(502) Applications. All registration applications involving an individual subject to examination must be filed with the securities department at least five days prior to the date of examination.

These rules are intended to implement section 502.11 of the Code.

[Filed August 1, 1963]

IOWA DEVELOPMENT COMMISSION

The Iowa development commission has the responsibility of administering the law governing the use of the state Trade-Mark or label bearing the words "Made-In-Iowa" or "Product of Iowa".

The commission has issued the following instructions to manufacturers who wish to use this label:

(1) Each manufacturer desiring to use the Iowa Trade-Mark shall file with the Iowa development commission the statement saying

how the label or trade-mark is to be used and on what products.

(2) Information must be filed to indicate that the trade-mark will be used on bona fide Iowa-made products.

(3) Upon satisfactory showing, to meet the foregoing requirements, the commission will furnish black and white, and/or color copy from which the manufacturer can reproduce the Iowa Trade-Mark.

LABOR, BUREAU OF

TITLE I SAFETY RULES FOR BOILERS

CHAPTER I BOILERS

1.1(89)T.I Definitions.

1.1(1) State of Iowa construction code is used to designate the accepted reference for construction, installation, operation, and inspection of boilers and unfired pressure vessels and should hereafter be referred to as the Iowa Boiler Code.

1.1(2) The A.S.M.E. boiler code and amendments and interpretations thereto are hereby adopted and shall hereafter be known as the "Iowa Construction Code" (Iowa code). A copy of this code is on file in the office of the commissioner of labor, and in the state law library in the statehouse.

1.1(3) "Power boiler" as used herein shall mean any vessel used for generating steam or vapor for power or heating purposes at a pressure in excess of fifteen pounds per square inch.

"Unfired pressure vessel" as used herein shall mean any tank, jacketed vessel or other unfired pressure vessel used for transmitting steam for power or for using or storing steam under pressure for heating or steaming purposes at a pressure in excess of fifteen pounds pressure except those vessels definitely excluded by paragraph U-1 of the Iowa code.

1.1(4) "Chief inspector" as used herein shall mean the state boiler inspector appointed by the commissioner of labor under the provisions of section 89.1 of the Code.

1.1(5) "Deputy inspector" as used herein shall mean any deputy inspector of boilers appointed by the commissioner of labor under the provisions of section 89.1 of the Code.

1.1(6) "Special inspector" as used herein shall mean an inspector employed by an insurance company, which is authorized to insure boilers in the state of Iowa, and who shall have been commissioned by the commissioner of labor. Such inspectors shall be commissioned by the commissioner of labor provided they hold a commission from a state having a boiler law the equivalent of that of the state of Iowa or a commission from the National Board of Boiler and Pressure Vessel Inspectors.

1.1(7) "Inspector" as used herein shall mean the chief inspector, a deputy inspector, or a special inspector.

1.1(8) "Department" as used herein shall mean the bureau of labor of the state of Iowa.

1.1(9) "Commissioner" as used herein shall mean the commissioner of labor.

1.1(10) The term "secondhand boiler" or "secondhand pressure vessel" is a boiler or pressure vessel of which both the location and ownership have been changed.

1.1(11) "Owner or user" as used herein shall mean any person, firm, or corporation owning or operating or in charge of or in control of any boiler or unfired pressure vessel within this state.

1.1(12) "Existing installation" as used herein shall be taken to mean and to apply to any boiler or unfired pressure vessel which was installed or within this state ready to be installed or has previously operated in this state prior to the effective date of these rules.

1.2(89)T.I New installations—power boilers.

1.2(1) No power boiler shall hereafter be brought into this state and installed unless it has been constructed and inspected in accordance with the requirements of the Iowa code for boilers and is so stamped or is inspected and stamped in accordance with the requirements of the National Board of Boiler and Pressure Vessel Inspectors. A boiler having a standard stamping of a state that has adopted a standard of construction equivalent to the standard of the state of Iowa may be accepted by the department provided, however, that the person desiring to install same shall make application for the installation of same and shall file with the application a manufacturer's data report covering the construction of the boiler in question.

1.2(2) Upon completion of installation, all such boilers shall be inspected by the chief inspector, a deputy inspector or a special inspector commissioned to inspect boilers in this state and at least once each year thereafter shall be subjected to a regular internal and external inspection.

Also at time of first inspection after installation all said boilers must be stamped with a serial number of the state of Iowa followed by the letters Ia., said letters and figures to be not less than $\frac{1}{8}$ inch in height.

1.3(89)T.I Existing installations—power boilers.

1.3(1) The maximum allowable working pressure on the shell of a power boiler or drum shall be determined by the strength of the weakest section of the structure, computed from the thickness of the plate, the tensile strength of the plate, the efficiency of the longitudinal joint, or tube ligaments, the inside diameter of the course and the factor of safety allowed by these rules $\frac{TS \times t \times E}{R \times FS} =$ maximum allowable working pressure in pounds per square inch.

Where:

TS = ultimate tensile strength of shell plates, lbs. per square inch.

t = minimum thickness of shell plate, in weakest course in inches.

E = efficiency of longitudinal joint.

For riveted construction, determined by rules given in paragraph P-181, of Iowa code.

For fusion-welded construction, determined by rules in paragraph P-102, of Iowa code, or rule 2.

For tube ligaments, determined by rules in paragraphs P-192 and P-193, of Iowa code.

For seamless construction, shall be considered one hundred percent.

1.3(2) Factors of safety.

a. The lowest factor of safety permissible on existing installations shall be four, excepting for horizontal tubular boilers having continuous lap seams more than twelve feet in length where the factor of safety shall be eight, and when this type of boiler is removed from its existing setting, it shall not be reinstalled for pressure in excess of fifteen pounds.

b. Boilers which are reinstalled shall have a minimum factor of safety of six when the longitudinal seams are of lap riveted construction, and a minimum factor of safety of five when the longitudinal seams are of butt and double strap construction.

c. A boiler constructed with fusion-welded seams which are not X-rayed and stress relieved during construction shall have at least three one-inch diameter plugs trepanned from each seam and these plugs etched to determine the soundness of the weld. If this test discloses the weld to be sound through eighty percent of the thickness of the plate the boiler may be operated at a pressure based upon the formula in rule 1, using an efficiency of longitudinal joint of eighty percent and a factor of safety of not less than seven. If the weld is not sound through eighty percent of the thickness of plate the boiler shall not be operated at a pressure in excess of fifteen pounds.

A boiler with fusion-welded seams that have been X-rayed and stress relieved may be operated at a pressure based upon the formula in rule 1, using an efficiency of longitudinal joint eighty percent and a factor of safety of five.

d. The above factors of safety shall be increased by the inspector if the condition and safety of the boilers demand it.

e. In no case shall the maximum working pressure of an old boiler be increased to a greater pressure than would be allowed for a new boiler of same construction.

1.3(3) Cast iron headers and mud drums.

a. The maximum allowable working pressure on a water tube boiler, the tubes of which are secured to cast iron or malleable iron headers, or which have cast iron mud drums, shall not exceed one hundred sixty pounds per square inch.

b. The maximum steam pressure on any boiler in which steam is generated, if constructed of cast iron, shall be fifteen pounds per square inch.

1.3(4) Tensile strength. When the tensile strength of steel or wrought iron shell plates is not known, it shall be taken as 55,000 lbs. per square inch for steel and 45,000 lbs. per square inch for wrought iron.

1.3(5) Strength of rivets in shear. In computing the ultimate strength of rivets in shear the cross-sectional area of the rivet shank shall be used, for the values in pounds per square inch, based upon the requirements of paragraphs P-16 of Iowa code.

1.3(6) Crushing strength of mild steel. The resistance to crushing of mild steel shall be taken at 95,000 lbs. per square inch of cross-sectional area.

1.3(7) Rivets. When the diameter of the rivet holes in the longitudinal joints of a boiler is not known, the diameter and cross-sectional area of rivets, after driving, may be selected from the following table or ascertained by cutting out one rivet in the body of the joint.

Thickness of plate	1/4"	3/8"	1/2"	5/8"
Diameter of rivet				
after driving	11/16"	11/16"	3/4"	3/4"
Thickness of plate	3/8"	1/2"	5/8"	3/4"
Diameter of rivet				
after driving	11/16"	11/16"	11/16"	11/16"
Thickness of plate	1/2"	5/8"	3/4"	
Diameter of rivet after driving	11/16"	11/16"	11/16"	

1.3(8) a. Each boiler shall be equipped with one or more safety valves placed as close to the boiler as possible. No valve of any description shall be placed between the safety valve and the boiler nor on the escape pipe between the safety valve and the atmosphere. When an elbow is placed on a safety valve escape pipe, it shall be located close to the safety valve outlet or the escape pipe shall be securely anchored and supported. When an escape pipe is used, it shall be full sized and fitted with an open drain to prevent water lodging in the upper part of the safety valve or escape pipe. Safety valves having either the seat or disc of cast iron shall not be used. Dead weight safety valves are prohibited for pressure exceeding fifteen pounds. Lever-weighted safety valves, when in need of repair, must be replaced with spring-loaded safety valves.

b. The safety valve capacity of each boiler shall be such that the safety valve or valves will discharge all the steam that can be generated by the boiler without allowing the pressure to rise more than six percent above the maximum allowable working pressure, or more than six percent above the highest pressure to which any valve is set.

1.3(9) One or more safety valves on every boiler shall be set at or below the maximum allowable working pressure. The remaining valves may be set within a range of three percent above the maximum allowable working pressure, but the range of setting of all the safety valves on a boiler shall not exceed ten percent of the highest pressure to which any valve is set.

1.3(10) Fire-actuated fusible plugs, when used, shall conform to the rules and regulations of the Iowa code for new construction.

1.3(11) In all cases where no mechanical feed is attached to a boiler, the safety valve shall be set at not less than six percent below the pressure of the main source of supply feeding the boiler. A return trap shall not be considered as a mechanical feeding device. Not less than two means shall be provided for feeding the boiler against the maximum approved pressure.

In all cases where the source of feed water is such that the pressure will not feed the boiler, approved feed pumps, injectors or inspirators shall be provided to give ample feed against the maximum approved pressure. Feed water should have a temperature of not less than 120° F.

1.3(12) *Water glasses.* Each steam boiler shall have at least one water glass, the lowest visible part of which shall be not less than three inches above the lowest permissible water level.

1.3(13) Each boiler shall have three or more gage cocks, located within the range of the visible length of the water glass, when the maximum allowable working pressure exceeds fifteen pounds per square inch except when such boiler has two water glasses with independent connections to the boiler, located on the same horizontal line and not less than two feet apart.

1.3(14) No outlet connections, except for damper regulator, feed water regulator, low water fuel cut-out, drains or steam gages, shall be placed on the pipes connecting a water column to a boiler.

1.3(15) *Steam gages.* Each steam boiler shall have a steam gage connected to the steam space or to the steam connection to the water column. The steam gage shall be connected to a siphon or equivalent device of sufficient capacity to keep the gage tube filled with water and so arranged that the gage cannot be shut off from the boiler except by a cock placed near the gage and provided with a tee or lever handle arranged to be parallel to the pipe in which it is located when the cock is open.

1.3(16) *Stop valve.* Each steam outlet from a boiler (except safety valve connections) shall be fitted with a stop valve located as close as practicable to the boiler.

1.3(17) When a stop valve is so located that water can accumulate, ample drains shall be provided.

1.3(18) *Bottom blow-off pipes.* Each boiler shall have a blow-off pipe fitted with valve or cock in direct connection with the lowest water space practicable. When cocks are used they shall be of the gland or guard type and suitable for the pressure allowed. Globe valves are not permitted.

1.3(19) When the maximum allowable working pressure exceeds one hundred pounds per square inch, the blow-off pipe shall be extra heavy from boiler to valve or valves, and shall run full size without reducers or bushings. Blow-off piping shall be of black wrought

iron or black steel (not galvanized) and shall be extra heavy pipe size. All fittings between the boiler and valve shall be of steel or extra heavy fittings or bronze, brass or malleable iron. In case of renewal of pipe or fittings in the blow-off lines, as specified in this paragraph, they shall be installed in accordance with the rules for new installations.

1.3(20) When the maximum allowable working pressure exceeds one hundred pounds per square inch, each bottom blow-off pipe shall be fitted with two valves or a valve and cock, such valves and cocks to be of extra heavy type.

1.3(21) A bottom blow-off pipe, when exposed to direct furnace heat, shall be protected by fire-brick or other heat-resisting material, so arranged that the pipe may be inspected.

1.3(22) An opening in the boiler setting for a blow-off pipe shall be arranged to provide for free expansion and contraction.

1.3(23) *Feed piping.* The feed pipe of a steam boiler shall be provided with a check valve near the boiler and a valve or cock between the check valve and the boiler, and when two or more boilers are fed from a common source, there shall also be a globe valve on the branch to each boiler, between the check valve and the source of supply. When a globe valve is used on a feed pipe, the inlet shall be under the disc of the valve.

1.3(24) *Test pressure.* When a hydrostatic test is applied, test pressure shall be not more than one and one-half times the maximum allowable working pressure.

During a hydrostatic test of a boiler, suitable provisions shall be made so that it will not be necessary to screw down the compression screw upon the spring of the safety valve. The temperature of water used during a hydrostatic test shall not exceed 160° F.

1.3(25) In any case where repairs are made or fittings or appliances renewed they must comply with the Iowa code for new installations.

1.3(26) All existing installed boilers shall be stamped with an Iowa serial number provided for new installations.

1.3(27) In any condition not definitely covered by these rules the Iowa code for new installations shall apply.

1.4(89) T.I New installations — miniature boilers.

1.4(1) No miniature boiler shall hereafter be brought into this state and installed after March 31, 1967 unless it has been constructed and inspected in accordance with the requirements of the Iowa code for miniature boilers and is so stamped or is inspected and stamped in accordance with the requirements of the National Board of Boiler and Pressure Vessel Inspectors. A boiler having a standard stamping of a state that has adopted a standard of construction equivalent to the standard of the state of Iowa may be accepted by the department provided, however, that the person de-

siring to install same shall make application for the installation of same and shall file with the application a manufacturer's data report covering the construction of the boiler in question.

1.4(2) Upon completion of installation all such boilers shall be inspected by the chief inspector, a deputy inspector or a special inspector commissioned to inspect boilers in this state and at least once each year thereafter shall be subjected to a regular internal and external inspection.

1.4(3) Also at time of first inspection after installation all said boilers must be stamped with the serial number of the state of Iowa, followed by the letters Ia., said letters and figures to be not less than $\frac{1}{8}$ inch in height.

[Filed May 4, 1967]

1.5(89)T.I Existing installations—miniature boilers. Rules and regulations as adopted for power boilers, 1.3(89), as applied to strength of material, mathematical calculations to determine the safety of a boiler shall be used in all computations pertaining to the safe working pressure of a miniature boiler unless a special rule is hereafter given.

1.5(1) The maximum allowable working pressure on the shell of a boiler or drum shall be determined by 1.3(1) for power boilers.

$$\frac{TS \times t \times E}{R \times FS} = \text{maximum allowable working pressure, pounds per square inch.}$$

Where:

TS = ultimate tensile strength of shell plates, lbs. per square inch.

t = minimum thickness of shell plate, in weakest course, in inches.

E = efficiency of longitudinal joint, method of determining which is given in paragraph P-181, of the Iowa code.

E = for tube ligaments between openings shall be calculated by the rules given in P-192 and P-193, Iowa code.

R = inside radius of the weakest course of the shell or drum in inches.

FS = factor of safety allowed by these rules.

Note: To be used as given above for longitudinal joints, riveted construction or if for fusion-welded joints, E shall be taken as per efficiency specified in paragraph P-102, of the Iowa code.

In any case wherein there are both riveted joints and tube ligaments to consider, the weaker of these shall be used for E.

1.5(2) The construction of miniature boilers including factor of safety, except where otherwise specified, shall conform to that required for power boilers [1.3(89)].

1.5(3) The temperature of the heating element for electrically heated steam boilers (closed system) shall be so controlled that it will not exceed 1200° F. All electrical equipment shall be installed and grounded in accord-

ance with the requirements of the National Electrical Safety Code.

1.5(4) Every miniature boiler shall be fitted with suitable washout plugs of one inch iron pipe size, which shall be screwed into openings in the shell near the bottom. In miniature boilers of the closed-system type heated by removable internal electrical heating elements, the opening for these elements when suitable for cleaning purposes, may be substituted for washout openings. All threaded openings in the boiler shall be provided with a riveted or welded reinforcement if necessary to give four full threads therein.

1.5(5) Every miniature boiler shall be provided with at least one feed pump or other feeding device, except where it is connected to a water main carrying sufficient pressure to feed the boiler, or where the steam generator is operated with no extraction of steam (closed system).

In the latter case in lieu of a feeding device, a suitable connection or opening shall be provided to fill the generator when cold. Such connection shall be not less than one-half inch pipe size.

In all cases where no mechanical feed is attached to a boiler the safety valve shall be set at not less than six percent below the pressure of the main source of supply feeding the boiler. A return trap shall not be considered as a mechanical feeding device.

1.5(6) Each miniature boiler shall be fitted with feed water and blow-off connections, which shall not be less than one-half inch iron pipe size unless operated on a closed system as provided in subrule 1.5(5). The feed pipe shall be provided with a check valve and a stop valve. The feed water may be delivered to the boiler through the blow-off connection, if desired. The blow-off shall be fitted with a valve or cock in direct connection with the lowest water space practicable.

1.5(7) Each miniature boiler for operation with a definite water level shall be equipped with a glass water gage for determining the water level. The lowest permissible water level shall be at a point one-third of the height of the shell, except where the boiler is equipped with internal furnace, when it shall be not less than one-third of the length of the tubes above the top of the furnace. In the case of small generating units operated on the closed system where there is insufficient space for the usual glass water gage, water level indicators of the glass bull's-eye type may be used.

1.5(8) Each miniature boiler shall be equipped with a steam gage having its dial graduated to not less than one and one-half times the maximum allowable working pressure. The gage shall be connected to the steam space or to the steam connection to the water column by a brass or bronze composition siphon tube, or equivalent device that will keep the gage tube filled with water.

1.5(9) Each miniature boiler shall be equipped with a sealed spring-loaded pop safety valve, not less than one-half inch in diameter, connected directly to the boiler. Where there is no extraction of steam (closed system) a fracturing disk safety valve may be used in addition to the spring-loaded pop safety valve. The safety valve shall be plainly marked by the manufacturer with a name or an identifying trade-mark, the nominal diameter, and the steam pressure at which it is not to blow. The safety valve capacity of each boiler shall be such that the safety valve or valves will discharge all the steam that can be generated by the boiler without allowing the pressure to rise more than six percent above the maximum allowable working pressure, or more than six percent above the highest pressure to which any valve is set.

1.5(10) Each steam line from a miniature boiler shall be provided with a stop valve located as close to the boiler shell or drum as is practicable, except when the boiler and steam receiver are operated as closed system.

1.5(11) Where miniature boilers are gas-fired, the burners used shall conform to the requirements of the American Gas Association, as given in paragraph MA-5 of the Appendix of the Iowa code. The burners shall in such cases be equipped with a fuel-regulating governor, which shall be automatic and regulated by the steam pressure. This governor shall be so constructed that in the event of its failure, there can be no possibility of steam from the boiler entering the gas chamber or supply pipe.

1.6(89)T.I New installations—unfired pressure vessels.

1.6(1) No unfired pressure vessel shall hereafter be brought into this state and installed unless it has been constructed and inspected in accordance with the requirements of the Iowa code for unfired pressure vessels and is so stamped or is inspected and stamped in accordance with the requirements of the National Board of Boiler and Pressure Vessel Inspectors. An unfired pressure vessel having a standard stamping of a state that has adopted a standard of construction equivalent to the standards of the state of Iowa may be accepted by the department provided, however, that the person desiring to install same shall make application for the installation of same and shall file with the application the manufacturer's data report covering the construction of the unfired pressure vessel in question.

1.6(2) Upon completion of installation all such unfired pressure vessels shall be inspected by the chief inspector, a deputy inspector, or a special inspector commissioned to inspect boilers in this state, and at least once each year thereafter shall be subjected to a regular internal and external inspection.

1.6(3) Also at time of first inspection after installation all said unfired pressure vessels must be stamped with the serial number of the state of Iowa, followed by the letters Ia,

said letters and figures to be not less than $\frac{1}{4}$ inch in height.

1.7(89)T.I Existing installations—unfired pressure vessels.

1.7(1) The maximum allowable working pressure of the shell of an unfired pressure vessel shall be determined in accordance with 1.3(1) applying to power boilers except that E for fusion-welded joints shall equal:

Single butt welds	50%
Double butt welds	70%
Single lap welds	30%
Double lap welds	60%
Forged welds	80%
Lap brazed joints in steel or copper ..	90%

1.7(2) Factors of safety. The lowest factor of safety permissible on existing installations shall be four, except that this factor of safety shall be increased by the inspector if the condition and safety of the unfired pressure vessel demands it. In no case shall the maximum working pressure of an old unfired pressure vessel be increased to a greater pressure than would be allowed for a new vessel of the same construction.

1.7(3) Lap seam cracking. The shell and drum of a pressure vessel in which a lap seam crack is discovered along a longitudinal riveted joint, either butt or lap construction, shall be immediately discontinued from use.

1.7(4) Tensile strength. Subrule 1.3(4) for power boilers shall apply.

1.7(5) Strength of rivets in shear. Subrule 1.3(5) for power boilers shall apply.

1.7(6) Crushing strength of mild steel. Subrule 1.3(6) of power boilers shall apply.

1.7(7) Rivets. Subrule 1.3(7) for power boilers shall apply.

1.7(8) Safety appliances. All pressure vessels shall be provided with such safety and relief valves and indicating and controlling devices as will insure their safe operation. These devices shall be so constructed, located and installed that they cannot readily be rendered inoperative. The relieving capacity of a safety valve shall be such as to prevent a rise of pressure in the vessel of more than ten percent above the maximum allowable working pressure, taking into account the effect of static head. The safety valve discharges shall be carried to a safe place. Safety valves shall be of the direct spring-loaded type, designed with substantial lifting device so that disc can be lifted from its seat by the spindle not less than one-eighth the diameter of the valve when the pressure of the vessel is seventy-five percent of that at which the safety valve is set to blow. Safety valves having either the seat or disc of cast iron shall not be used. In a vessel in which pressure is derived from an outside source, each safety valve should be so connected to the vessel, vessels or system which it protects as to prevent a rise of pressure beyond the maximum allowable pressure

in any vessel protected by the safety valve. Safety valve springs shall not be adjusted to carry more than ten percent greater pressure than that for which the springs are made.

1.7(9) Fusion welding. Any repairs by fusion welding must be approved beforehand by a commission inspector and all welded repairs must be made in accordance with the rules recommended by the National Board of Boiler and Pressure Vessel Inspectors.

1.7(10) In any condition not covered by the above rules, the rules for new installations of the Iowa code shall apply.

1.8(89) T.I General rules—power boilers and unfired pressure vessels.

1.8(1) All power boilers and unfired pressure vessels which are subject to regular inspections as provided in chapter 89 of the Code shall be prepared for inspection when the owners or users are notified by either the chief inspector, a deputy inspector or a special inspector to prepare for such inspections and for hydrostatic test if necessary.

1.8(2) The owner or user of a power boiler or unfired pressure vessel herein required to be inspected, shall, on a date specified by the chief inspector, a deputy inspector, or a special inspector, which date shall be not less than seven days after date of such notice, unless by consent of the owner, prepare the power boiler, heating boiler, or unfired pressure vessel for internal inspection, or hydrostatic pressure test when necessary.

1.8(3) To prepare a power boiler for internal inspection, the water shall be drawn off and the boiler thoroughly washed. All man-hole and hand-hole plates and washout plugs in boilers and water column connections shall be removed, and the furnace and combustion chambers thoroughly cooled and cleaned. All grates of internally fired boilers shall be removed; also enough of the brick work of any type of boiler shall be removed to determine the condition of the boiler, furnace, or other parts at each annual inspection when deemed necessary by the inspector. The steam gage shall be removed for testing.

An unfired pressure vessel shall be prepared for a general inspection to the extent deemed necessary by the inspector.

1.8(4) If a power boiler or an unfired pressure vessel has not been properly prepared for inspection as provided in 1.8(3), the inspector may decline to make such inspection and the certificate of inspection shall be withheld until the boiler has been properly prepared and inspected.

If it is found that steam or hot water is leaking into a boiler or unfired pressure vessel the source of such leakage shall be disconnected if necessary to cut out such steam or hot water from the boiler or pressure vessel to be inspected.

1.8(5) The fees for inspection and for inspection certificate shall be paid to the bureau

of labor before a certificate of inspection shall be issued. If the owner or user of any boiler or unfired pressure vessel required to be inspected under this Act by the department refuses to allow a boiler or unfired pressure vessel to be inspected or refuses to pay the fee as provided for in section 89.7 of the Code, then such boiler or unfired pressure vessel shall not be operated until after a valid inspection has been made by either the chief inspector or any deputy inspector or any special inspector.

1.8(6) If, upon inspection, a boiler or unfired pressure vessel is found to be in such condition that it is unsafe to operate, the inspection certificate shall be suspended and the owner or user of such boiler or unfired pressure vessel who causes the same to be operated shall be subject to the penalty as provided in section 89.9 of the Code.

1.8(7) Shop inspections made at the request of a boiler manufacturer by the chief inspector or any deputy inspector, shall be charged for at the rate of ten dollars for each boiler plus all expenses to include traveling, hotel and incidentals.

1.8(8) The shell or drum of a boiler or unfired pressure vessel in which a typical "lap seam crack" is discovered along a longitudinal riveted joint for either butt seam or lap joint shall be permanently disconnected for use under steam pressure. By "lap seam crack" is meant the typical crack frequently found in lap seams extending parallel to the longitudinal joint and located either between or adjacent to rivet holes.

1.8(9) All appliances required for electric steam generators shall be attached in accordance with the following rules.

A cable at least as large as one of the incoming power lines to the generator shall be provided for grounding the generator shell. This cable shall be permanently fastened on some part of the generator and shall be grounded in an approved manner.

A suitable screen or guard shall be provided around high tension bushings and a sign posted warning of high voltage. This screen or guard shall be so located that it will be impossible for anyone working around the generator to accidentally come in contact with the high tension circuits. When adjusting safety valves, the power circuits to the generator shall be open. The generator may be under steam pressure but the power line shall be open while the operator is making the necessary adjustments.

Each kw. of electrical energy consumed by an electric steam generator, operating at maximum rating, shall be considered the equivalent of one sq. ft. of heating surface of a fire tube boiler when determining the required amount of safety valve capacity.

1.8(10) If a boiler or unfired pressure vessel is jacketed so that the longitudinal seam of shells, drums or domes cannot be seen, and if it cannot otherwise be determined,

enough of the jacketing, setting wall or other covering shall be removed so that the size and pitch of the rivets and such other data as may be necessary to determine the safety of the boiler or unfired pressure vessel or appliance may be determined.

1.8(11) Where a major repair is necessary, a commissioned inspector shall be called for consultation and advice as to the best method of making such repairs; after such repairs are made they shall be subject to the approval of a commissioned inspector. Repairs to all boilers, unfired pressure vessels, and their appurtenances shall conform as nearly as practicable to the requirements of the Iowa code.

1.8(12) When repairs are to be made wherein fusion welding is to be used, permission must be obtained from the chief inspector, a deputy inspector or a special inspector and the welding must be done in accordance with the rules recommended by the National Board of Boiler and Pressure Vessel Inspectors.

1.8(13) *Condemned boilers.* Any boiler or pressure vessel that has been recommended for condemnation shall be immediately discontinued from service. The department shall be promptly notified of such action and the chief inspector or a deputy boiler inspector shall reinspect the boiler for final action. Boilers or pressure vessels that have been condemned shall have distinctly stamped thereon over the state of Iowa serial number the following symbol, XXX.

1.8(14) An inspection certificate issued in accordance with section 89.2 shall be valid until expiration unless some defect or condition affecting the safety of the boiler or pressure vessel for which it was issued is disclosed.

1.8(15) If a special inspector, upon the first inspection of a new risk, finds that the boiler or pressure vessel or any of the appurtenances are in such condition that his company refuses insurance on same, he shall immediately notify the commissioner of that fact together with a report of the defects.

1.8(16) If upon an external inspection there is evidence of a leak or crack, enough of the covering of the boiler or unfired pressure vessel shall be removed to satisfy the inspector in order that he may determine as to the safety of the boiler or unfired pressure vessel, or if the covering cannot be removed at that time, he may order the operation of the boiler or unfired pressure vessel stopped until such time as the covering can be removed and proper examination made.

1.8(17) In any case where a stationary boiler or unfired pressure vessel is moved and reinstalled the fittings and appliances must comply with the Iowa code for new installations.

1.8(18) *Riveted patches.* In applying riveted patches the design of patch and method of installation must be in accordance with the rules for riveted patches recommended by the National Board of Boiler and Pressure Vessel Inspectors.

1.9(89) T.I Insured boilers and vessels.

1.9(1) As of July 4, 1959, each certificate shall be issued for a period of one year and shall show an expiration date, and this expiration date shall remain the same as to day and month for this particular boiler or vessel as long as this boiler or vessel remains at the same location or is operated by the same owner or user. New installations are required to have a certificate of inspection issued within thirty days from the date boiler or vessel is put into operation.

1.9(2) Internal inspection must be made within a sixty-day period immediately prior to the expiration of the certificate.

1.9(3) Owner or user of boiler or vessel shall not be issued a notice or statement but must remit the required fee to the bureau of labor after inspection has been made and before the expiration date of their valid certificate. Drafts should be made payable to the bureau of labor.

1.9(4) Upon written request to the bureau of labor, showing an emergency exists, owner or user shall be granted a thirty-day grace period beyond the expiration date of said certificate and during this grace period said owner or user shall not be considered by the bureau of labor to be in violation of chapter 89 of the Code.

1.9(5) Where owners or users have allowed certificates to become delinquent and boilers have not been in use for a period of ninety days or more, it will be necessary to establish new expiration date to correspond with the date that boiler has been reinspected and put into use.

1.9(6) Boilers or vessels inspected by insurance company inspectors that have been previously inspected by the state boiler inspector will be issued a certificate as of the date of inspection made by the insurance company.

1.9(7) Insurance companies shall notify the bureau of labor at the same time they notify owner or user of any cancellation of insurance on any boiler or pressure vessel.

1.9(8) When an insurance company insures a boiler or pressure vessel that has been previously insured by another company, the bureau of labor must be notified by the present underwriter within thirty days of the date that the company assumes the risk.

[Filed July 15, 1959]

LAW ENFORCEMENT ACADEMY

CHAPTER 1

MINIMUM STANDARDS FOR IOWA LAW ENFORCEMENT OFFICERS

1.1(80B) General requirements for law enforcement officers. In no case shall any person hereafter be recruited, selected, or appointed as a law enforcement officer unless such person:

1.1(1) Is a citizen of the United States and a resident of Iowa or intends to become a resident upon being employed.

1.1(2) Has reached his or her twenty-first birthday and has not reached his or her sixtieth birthday at the time of his or her appointment.

1.1(3) Has a current active drivers license issued by the state of Iowa.

1.1(4) Is able to read and write the English language.

1.1(5) Is not a drug addict or a drunkard.

1.1(6) Is of good moral character as determined by a thorough background investigation including a fingerprint search conducted of local, state and national fingerprint files and has not been convicted of a felony or a crime involving moral turpitude.

1.1(7) Reserved for future use.

1.1(8) Is not by reason of conscience or belief opposed to the use of force, when appropriate or necessary to fulfill his duties.

1.2(80B) Additional requirements for state, county and city law enforcement officers. The following additional requirement shall apply to all law enforcement officers hereafter recruited, selected, or appointed except those employed by towns with a population of under 2000 people, highway commission weight officers, fairground police and capitol police.

1.2(1) Is a high school graduate with a diploma, or possesses an equivalency certificate which meets the minimum score required by the state of Iowa as determined by the state department of public instruction.

1.2(2) If a male, is at least 5'7" in height without shoes.

1.2(3) Is of a weight proportional to height as determined by an examining physician.

1.2(4) Has an uncorrected vision of not less than 20-100 in either eye; correctable to 20-20, and normal color vision.

1.2(5) Has normal hearing in each ear as determined by an examining physician.

1.2(6) Has participated in an oral interview held by the hiring authority, or representative, or representatives, to determine such things as appearance, background and ability to communicate.

1.2(7) Has been examined by a physician to determine if free from physical, emotional, or mental condition which might adversely affect the performance of duties.

1.2(8) Has attained a satisfactory grade in a pre-employment written examination.

1.3(80B) Higher standards not prohibited. While no law enforcement officer can be selected who does not meet requisite minimum requirements, they shall not limit, or restrict, law enforcement agencies in establishing additional recruitment standards.

These rules are intended to implement chapter 80B of the Code.

[Filed December 12, 1968; amended December 8, 1970]

CHAPTER 2

MINIMUM BASIC RECRUIT CURRICULUM FOR APPROVED IOWA LAW ENFORCEMENT TRAINING SCHOOLS

2.1(80B) Minimum recruit curriculum for law enforcement officers. The basic recruit law enforcement course of study in an accredited law enforcement training school shall consist of no less than one hundred and sixty hours of training, which training must be completed within an eight-week period and no law enforcement training facility will be approved by the Iowa law enforcement academy council unless it meets the minimum requirements of basic recruit study as set forth in the following curriculum.

2.1(1) *Patrol and related subjects*

- 47 hours
- a. Patrol.
 - (1) Mobile, foot or beat.
 - (2) Patrolling techniques and their effect on crime prevention.
 - b. Handling of the juvenile delinquent.
 - c. Handling of intoxicated persons.
 - d. Handling of disturbed and abnormal persons.
 - e. Handling of domestic situations.
 - f. Communications—radio and teletype.
 - g. National Crime Information Center.
 - h. Police community relations.
 - (1) Law enforcement and the news media.
 - (2) Law enforcement and minority groups.
 - (3) Creating a favorable public image.
 - (4) Human relations and applied psychology.
 - i. Traffic and traffic arrests.
 - (1) Iowa motor vehicle laws.
 - (2) Traffic safety.
 - (3) Directing of traffic in normal and abnormal situations.
 - (4) Calculating speeds.
 - (5) Licensing of drivers.

(6) The intoxicated driver.

(7) Implied consent law.

j. Accident investigation.

(1) Causes of accidents.

(2) Hit and run accidents.

(3) Accident reports.

(4) Use of accident records.

(5) Financial responsibility.

k. Impounding motor vehicles.

2.1(2) *Services of other agencies* 9 hours

a. Iowa bureau of criminal investigation.

b. Iowa highway safety patrol.

c. Federal bureau of investigation.

d. U. S. treasury department.

e. U. S. secret service.

f. Iowa department of health—Duties of medical examiner and dead body examination.

g. Iowa department of social services—Probation and parole.

2.1(3) *Firearms and related subjects* 30 hours

a. *Firearms.* Time should be spent in the classroom discussing the safe handling, proper grip and sight alignment of firearms prior to the actual practice on the shooting range. There should be a demonstration on the range showing the proper use and handling of weapons made available to officers by their department. (Example: riot gun, gas gun, etc.) The remainder of the time (suggest sixteen hours) should be devoted to safe handling and target shooting with the officer's personal service revolver. A minimum score of sixty, out of a possible one hundred, should be attained by each student (supervised, timed, and on an appropriate target) in order to qualify and be certified in firearms training.

b. Defensive tactics, disarming methods, and the use of restraining devices.

c. Handling of civil disturbances.

(1) Classroom discussion of mob and riot control.

(2) Field practice for control of mobs and riots.

2.1(4) *Principles of investigation and investigative procedures*.....39 hours

a. Investigative note taking.

b. Report writing.

c. Narcotics identification and investigation.

d. Auto theft investigation.

e. Arson, bombing and bomb threat investigation.

f. Homicide investigation.

g. Sex crime investigation.

h. Burglary investigation — Should include discussion or demonstration of types of locks and safes, and how they operate.

i. Surveillance.

j. Development of informants.

k. Fingerprints.

(1) History and use in law enforcement.

(2) Proper procedure for taking and classifying prints.

(3) Developing and lifting latent fingerprints.

l. Photography.

(1) Practical use of cameras.

(2) Explanation of developing and processing films and prints.

(3) Document, tire tread and crime scene photography.

(4) Photographing of prisoners.

m. Collection, preservation and handling of evidence.

n. Crime scene search—Classroom discussion, practical field problem, and critique. To include such things as sketching, diagramming and how to make a plaster cast.

2.1(5) *Law, criminal procedure, courts and related subjects* 31 hours

a. Constitution, Bill of Rights, and Civil Rights.

b. Criminal Code of Iowa.

c. Techniques and mechanics of arrest.

d. Establishing probable cause.

e. Procedural handling of felony and misdemeanor violations.

f. Obtaining and serving arrest warrants.

g. Interview, interrogation and confession.

h. Search and seizure.

(1) Obtaining search warrants.

(2) Search of persons and property.

(3) Identification and handling of seized property.

i. Preparation of cases for court.

j. Testifying.

k. Courtroom procedures.

l. Laws and rules of evidence.

m. Moot court.

(1) Pretrial discussion of practical problem.

(2) Student's testimony and presentation of evidence.

(3) Critique—with the presiding judge, defense attorneys, prosecuting attorneys, students and instructors.

2.1(6) *Review and examination* 4 hours

2.1(7) Subjects not covered in the one hundred and sixty-hour minimum basic curriculum as outlined above, but suggested to be included in the recruit training program, are as follows:

a. Orientation and indoctrination to include introduction to the training school, explanation of the rules and regulations of the school, registration and fingerprinting of each officer.

b. Classroom note taking and study habits.

c. Defensive driving training.

d. First-aid course.

2.2(80B) **More extensive recruit training curriculum not prohibited.** While no law enforcement training facility will be approved

by the Iowa Law Enforcement Academy Council which does not meet the minimum requirements of this basic recruit curriculum, this in no way limits or restricts any law enforcement training facility in instituting a basic recruit curriculum that surpasses the curriculum established pursuant to this Act.

This rule is intended to implement chapter 80B of the Code.

[Filed July 22, 1969]

CHAPTER 3

CERTIFICATION OF INSTRUCTORS FOR APPROVED REGIONAL LAW ENFORCEMENT TRAINING FACILITIES

3.1(80B) Definitions. For the purpose of these approval standards, the following definitions shall be used.

3.1(1) "Academy council" means the Iowa law enforcement academy council.

3.1(2) "Regional training facility" means an approved regional law enforcement training facility.

3.1(3) "Regional facility director" means the administrative head or responsible official of the approved regional law enforcement training facility.

3.1(4) A "guest lecturer" is a person who by reason of his position or experience can make a worthwhile contribution to a training program. He will normally be experienced in a specialized area and his instruction limited to the area of his experience. While the regional training facility may avail itself of his services on repeated occasions his use will not be of such frequency as to reasonably infer he is a member of the permanent regional instructional staff.

3.2(80B) Instructors for approved regional training facility.

3.2(1) *Instructors (general and professional).* All instructors at regional training facilities will be designated as either general or professional in nature. General law enforcement instructors will be those instructing in subjects clearly law enforcement in nature. Professional law enforcement instructors will be those instructing subjects in the area of criminal law, human relations, and other areas requiring specialized academic training. Final decision as to whether an instructor is in the general or professional area rests with the academy council.

3.2(2) *Certification of regional training instructors (general and professional).* Certification of regional training instructors (general and professional) will be issued by the academy council.

3.2(3) *Request for instructional certification (general and professional).* Instructors (general and professional) requesting certifi-

cation must submit this request to the academy council on an approved application for regional instructional certification form, which form can be obtained from the Iowa Law Enforcement Academy.

3.2(4) *Instructor qualifications (general).* Instructors (general) will be certified on the basis of minimum qualifications in the areas of education, training, experience and background. The actual evaluation and selection of instructors (general and professional) will remain the responsibility of the regional facility director who is ultimately responsible for the instruction provided.

3.2(5) *Granting or revocation of instructor certification (general and professional).* Instructor certification (general and professional) will be issued for a period of four years. At the end of a four-year period certification may be renewed if the instructor has instructed in a regional training facility program during the period of the certification and if his renewal certification is recommended by the regional facility director under whose supervision he has instructed. The certification may be revoked, in writing, whenever in the opinion of the academy council or in the opinion of the regional facility director, the same should be revoked. Prior to denying the certification, or revoking any certification, the certified holder may file a written appeal within thirty days of the date of revocation notice with the academy council. The academy council, upon receipt of written notice of such appeal, will hold a hearing within a thirty-day period from the date of written appeal. The appeal hearing will be held at the Iowa Law Enforcement Academy, Camp Dodge, unless otherwise designated by the academy council.

3.2(6) *Waiver of application requirements for instructor certification.* The requirement for the submission of a formal application for instructional certification for instructors at a regional training facility may be waived by the academy council in instances involving instructors made available by federal agencies. Final decision regarding the applicability of this provision to a proposed regional facility instructor (general) rests with the academy council.

3.2(7) *Responsibility for insuring instructional excellence.* It is the continuing responsibility of the regional facility director to insure that instructors are assigned only topics they are qualified to teach and are supervised on a regular basis to insure that instructional excellence is maintained.

3.2(8) *Endorsement of application for instructor certification.* Applications for instructor (general) certification will be endorsed by the regional facility director and where applicable by the applicant's department head.

3.2(9) *Guest lecturers.* These regulations do not preclude the utilization of guest lecturers. Final decision as to whether an indi-

vidual qualifies as a guest lecturer rests with the academy council.

3.3(80B) Minimum qualifications for certification for instructor (general) for approved regional law enforcement training facility. The following are minimum qualifications for certification of instructor (general), as defined, at approved regional law enforcement training facility.

3.3(1) Experience. A minimum of five years law enforcement experience is required by personnel instructing general subjects. This requirement may be modified by the director of the regional school, with academy council approval, in exceptional cases reflecting outstanding education or experience.

3.3(2) Education. Must have a minimum of a high school graduation with a diploma or possess an equivalency certificate which meets the minimum score required by the state of Iowa as determined by the state department of public instruction.

3.3(3) General background.

a. Is of good moral character as determined by a thorough background investigation including a fingerprint search conducted of local, state and national fingerprint files and has not been convicted of a felony.

b. Has participated in an oral interview held by the hiring authority, or representative, or representatives, to determine such things as appearance, background and ability to communicate.

c. Has been examined by a physician to determine if free from physical, emotional, or mental condition which might adversely affect the performance of duties.

d. The general background requirement may be waived if such requirements have already been met as a result of the instructor's current employment in the law enforcement field. Proof of compliance with the general background requirement shall be made available to the academy council upon request.

3.4(80B) Minimum qualifications for certification of instructor (professional) for approved regional law enforcement training facility. The following are minimum qualifications for certification of instructor (professional), as defined, at an approved regional law enforcement training facility.

3.4(1) Experience. Must have at least three years of experience in the subject area to be instructed.

3.4(2) Education. Must have at least a baccalaureate degree in the subject area or a related field.

3.4(3) Background. While no background investigation is required, an instructor (professional) must be recommended by the regional facility director and in making such recommendation the regional facility director

shall consider the reputation, conduct, stability and ability of the person being recommended.

These rules are intended to implement chapter 80B of the Code.

[Filed July 16, 1970]

CHAPTER 4

APPROVED REGIONAL LAW ENFORCEMENT TRAINING FACILITY

4.1(80B) Definitions. For the purpose of these approval standards, the following definitions shall be used.

4.1(1) "Academy council" means the Iowa law enforcement academy council.

4.1(2) "Regional training facility" means an approved regional law enforcement training facility.

4.1(3) "Regional facility director" means the administrative head or responsible official of the approved regional law enforcement training facility.

4.1(4) "Facilities approval application form" means the form prepared by the Iowa law enforcement academy council to be utilized in an application for approval of a regional law enforcement training facility.

4.1(5) "B.C.I. bulletin" means the Iowa bureau of criminal investigation weekly bulletin.

4.2(80B) Procedures for approval or disapproval of regional training facility.

4.2(1) On-site inspection. Approval of a regional training facility will be made on the basis of on-site inspections conducted by members of the academy council, with or without advance notice to the regional training facility.

4.2(2) Written request for approval. A request for approval of a regional training facility will be made in writing to the academy council by the regional facility director.

4.2(3) Facilities approval application form. The request for approval of a regional training facility must be accompanied by a completed facilities approval application form, which form may be obtained from the Iowa law enforcement academy.

4.2(4) Inspection. The inspection of a regional training facility must be conducted within twenty days of receipt of the request by the academy council.

4.2(5) Approval or disapproval furnished in writing. Approval, or disapproval, of the regional training facility will be furnished in writing by the academy council to the regional facility director within thirty days of receipt of the request by the academy council. Such approval will be published in the B.C.I. bulletin.

4.2(6) Appeal. In the event approval of a regional training facility is denied, a written

appeal may be made to the academy council. This appeal will be heard at the next regularly scheduled meeting of the academy council or within thirty days of the date of appeal, whichever occurs first. Decision of the academy council is final.

4.2(7) Continuing approval of facility. Continuing approval of regional training facilities shall be granted to facilities offering law enforcement training on a regular basis and will continue in effect until surrendered or revoked.

4.2(8) One-time approval of facility. Approval of a regional training facility offering one-time law enforcement training shall be for a specific course and shall be issued for a definite period of time not to exceed one year. A renewal of approval of such a facility may be granted by the academy council upon receipt of a written approval request accompanied by a completed facilities approval application form with or without a reinspection by members of the academy council.

4.2(9) Revocation of approval. Approval of a regional training facility may be revoked by action of the academy council whenever a facility is deemed inadequate. Such revocation shall be furnished in writing by the academy council to the regional facility director specifically stating why approval is being revoked. Notice of such revocation will be published in the B.C.I. bulletin. The facility may be reapproved by the academy council when it deems the deficiencies have been corrected. Such reapproval will be published in the B.C.I. bulletin.

4.2(10) Notification to law enforcement officers of status of regional training facility. It is the responsibility of the regional facility director to appropriately notify officers enrolled in a training course whether the facility has or has not been approved in compliance with Iowa's mandated training law.

These rules are intended to implement chapter 80B of the Code.

[Filed July 16, 1970]

LIBRARY, LAW

CHAPTER 1

USE OF LIBRARY

1.1(303) Library hours. The Iowa state law library shall be open to the public each day of the week from 8 o'clock A.M. to 5 o'clock P.M. until officially changed, except Saturdays, Sundays, and on occasions when offices in the statehouse are closed by order of the executive council.

1.2(303) Eligibility for loans. Loan of material for use outside the law library shall be limited to members of the Iowa courts, the Iowa bar, the general assembly, and elective and appointive state officials. Other residents of Iowa may use in the law library any material therein, except material of a private or confidential nature.

1.3(303) Loan period. In the course of legal research the reader may need to refer to many books, some for extensive study, others for brief reference. If one of these books is not available his work will be delayed, or, worse still, he may have to conclude his research without examination of all the books for which he has citations. To avoid this situation the collection in the law library should be kept intact so far as possible. Therefore, initial loans may be made for a period of seven days. At the expiration thereof an extension of seven days may be granted. Further extension may be granted only for cause satisfactory to and for the period determined by the law librarian. Initial loans of bound volumes of Iowa supreme court abstracts and arguments may be made for fourteen days. Shepard's citations cannot be loaned.

1.4(303) Shipping charges. On all loans requiring the shipment of material to a point outside of Des Moines the borrower shall pay shipping charges from Des Moines and return.

1.5(303) Loan cards. No material shall be removed from the law library except upon loans signed by borrowers on loan cards furnished by the law library, and a complete record of the loan preserved.

1.6(303) Misplaced books. Great care should be used in returning books to the shelves after use. A book misplaced is for the time being a book lost. Readers thereof are requested to leave them on the reading tables. A library attendant will replace them.

1.7(303) Smoking. Smoking is prohibited on all floors above the first floor, on account of fire hazard.

1.8(303) Disturbing noise. Noise is not conducive to study, is annoying, and out of place in a law library. Persons using the library are requested to regulate their conduct in this respect so as not to disturb others.

1.9(303) Marking books prohibited. Books are to be read, not marked or interlined. Users are requested to strictly observe this rule.

1.10(303) Penalties and fines. Any book in the collection of the Iowa state law library that is injured, defaced, destroyed or lost while in the possession of or loaned to any person shall be replaced by said person. If said person fails to replace said book within sixty days after receipt of a letter signed by the law librarian, mailed by registered mail, requesting said person to replace said book, then and in

that event said person shall, within fifteen days thereafter, pay to the treasurer of the state of Iowa a sum of money equal to the cost of replacing said book, or the value placed thereon by the Iowa library board of trustees if said book is irreplaceable after an effort so to do has been made by the law librarian, and

on failure to make said payment said person shall be penalized and fined in an amount equal to said sum of money, and said fine, together with court costs, may be collected in the manner prescribed in section 303.3, subsection 10 of the Code.

[Filed prior to July 4, 1951]

LIBRARY, STATE TRAVELING

CHAPTER 1

USE OF LIBRARY

1.1(303) Borrowers. State officials and employees may borrow direct from the Des Moines headquarters. Public libraries and individuals without public library service may borrow by mail with the borrower paying transportation on loan collections.

1.2(303) Books. All books except reference items are available for loan for one month. Reference items can be "verifaxed" at a nominal cost.

1.3(303) Phonodiscs. Phonodiscs are available to public libraries in loan collections of

15 to 200 depending upon size of library for a two-month period with public libraries paying transportation on loan collections.

1.4(303) Reference service. Reference service in the headquarters is available to anyone using the reference and circulation division reading area and to borrowers designated in rule 1.1(303).

1.5(303) Loss of books and related materials. Borrowers will receive first notice of overdue books within two weeks after date due, second notice within two weeks following first notice and billing using list price will be made within one month of original due date.

[Filed January 11, 1966]

LIQUOR CONTROL COMMISSION

CHAPTER 1

PERMIT DEPARTMENT

1.1(123) Manufacture and sale of native wines. Manufacturers of native wines from grapes, cherries, other fruit juices or honey grown and produced in Iowa, may sell, keep or offer for sale and deliver the same, subject to the following regulations and restrictions.

1.1(1) Before commencing the business of selling wine, the manufacturer shall inform the Iowa liquor control commission, in writing of his intention to enter into such business, the place where it will be conducted, the type, brand name and package sizes of each wine to be sold, and the name and mailing address of the manufacturer. If any of such facts are thereafter changed the manufacturer shall immediately notify the commission in writing of the full nature of such change.

1.1(2) At least ten days prior to selling a particular type or brand of wine, the manufacturer shall deliver to the commission two separate bottles of such wines, each of at least one-fifth gallon in quantity, for chemical analysis and shall pay the commission fifteen dollars for the expense of such analysis.

1.1(3) Not more than twenty gallons of such wine shall be sold or delivered to any one purchaser at any one time.

1.1(4) Such wine shall not be sold in a package size smaller than one-half fifth gallon.

1.1(5) Sale and delivery of such wine may be made only on the premises where the wine was manufactured.

1.1(6) Such native wine shall not be sold or delivered on Sunday, any legal holiday, or any election day for the area within which such sale or delivery might be made. On other days sale and delivery of such native wine may be made only between 10:00 A.M. and 8:00 P.M.

1.1(7) The manufacturer shall, in January of each year, deliver to the Iowa liquor control commission a complete report, sworn to under oath by the owner, a partner, or a corporation officer, showing the number of gallons of wine produced by him in the preceding year, and number of gallons of wine in his possession at the beginning and at the end of the preceding year; such report shall be subdivided so as to show such information in respect to each different type and brand of wine. If such manufacturer is also engaged in buying and selling wine, such report shall also contain such information, so subdivided, in regard to wine purchased, purchased wine sold, and purchased wine in the manufacturer's possession at the beginning and at the end of the preceding year.

1.1(8) A monthly report showing the amount of wine on hand at the beginning of the month, the amount produced, the amount sold and used for family use and any other information requested on report form which shall be sent to the Iowa liquor control commission. This report must reach the commission not later than the last day of the month following the month or period of time for which each report is made. Report forms to be furnished by the commission.

1.1(9) The manufacturer shall cause his premises, books of account and records to be accessible and available at all reasonable times for inspection by representatives of the Iowa liquor control commission.

1.1(10) Such manufacturer shall not advertise such native wine by signs or posters, but he may have a sign at the place of manufacture identifying his business and not more than two signs there simply stating, without description or price, that wine or native wine is for sale there.

1.1(11) Such manufacturer of native wines shall not be required to have a license or permit for such business unless his business is such as to require a manufacturer's or wholesaler's license under the provisions of sections 123.36 and 123.37 of the Code.

1.2(123) Licensed manufacturers and wholesalers.

1.2(1) A separate manufacturer's or wholesaler's license shall be required for each place of business of the holder thereof.

1.2(2) The holder of a manufacturer's or wholesaler's license shall not sell alcoholic liquor outside the state of Iowa, except to a purchaser having the legal right to buy and receive it from such seller at the place of sale and place of delivery respectively.

1.2(3) Before making a sale to a purchaser other than the Iowa liquor control commission, a licensed manufacturer or wholesaler shall require the purchaser to produce and exhibit for inspection proof of his right to purchase alcoholic liquor according to the laws of his own state.

1.2(4) If the purchaser is a licensed physician or pharmacist or the holder of any other form of license or permit entitling him to purchase alcoholic liquor, the licensed manufacturer or wholesaler must make a record of the sale to him showing registry number of such license or permit, date thereof and where and to whom it was issued and the date of such sale, name and address of the purchaser and kind and quantity of alcoholic liquor sold to him.

1.2(5) The licensed manufacturer or wholesaler shall maintain a record of all shipments of liquor received and an individual record of each and every sale made, which record shall disclose the name and address of the purchaser and the kind and quantity of alcoholic liquor sold to each purchaser. The licensed manufacturer or wholesaler shall obtain from the carrier a receipt for each shipment of alcoholic liquor to each purchaser and shall deliver such receipt or a duplicate original thereof to the Iowa liquor control commission.

1.2(6) All records, books of account and premises of a licensed manufacturer or wholesaler shall be accessible and available at all reasonable times for inspection by representatives of the Iowa liquor control commission.

1.2(7) A monthly report showing the amount of wine on hand at the beginning of the month, and the amount produced and purchased, the amount sold and used for family and any other information requested on report forms shall be sent to the Iowa liquor control commission by each licensed manufacturer or wholesaler. This report must reach the commission not later than the last day of the month following the month or period of time for which each report is made. Report forms to be furnished by the commission.

1.3(123) Investigation before issuing license or permit. No manufacturer's or wholesaler's license, nor any special permit described in section 123.27 of the Code, shall be issued until an investigation has been made which shows that the applicant is entitled to such license or permit under the laws of Iowa and the rules and regulations of the Iowa liquor control commission.

1.4(123) Reports by holder of special compounds permit. The holder of a special compounds permit (being the type of permit referred to in subsection 2 "c" of section 123.27 of the Code) shall deliver to the Iowa liquor control commission, within ten days after receipt of any alcoholic liquor purchased from any seller other than said commission, a complete report showing the quantity, alcoholic proof, and description of each type of such liquor, and the name and address of the seller, and date the liquor was received.

1.5(123) Ethyl alcohol. Ethyl alcohol (meaning potable ethyl alcohol not contained in an alcoholic liquor ordinarily used for beverage purposes) shall be sold only (1) to holders of special permits described in section 123.27 of the Code, and (2) to holders of scientific permits for use in laboratory, scientific, experimental or testing purposes only, who after application, giving full information regarding such proposed use, receive permission from the commission to purchase ethyl alcohol.

1.6(123) Sureties on bonds. Bonds furnished the commission by (1) employees of this commission, (2) manufacturers of compounds, (3) wholesaler liquor dealer, (4) liquor manufacturers, must have for surety some surety company authorized to transact business in the state of Iowa by the state insurance department, except that manufacturers of compounds shall furnish personal bonds approved by this commission and with the certificate of sufficiency of sureties certified by the clerk of courts, or bonds furnished by a surety company authorized to transact business in the state of Iowa.

[Filed December 22, 1961]

CHAPTER 2

PERSONNEL AND STORE OPERATIONS

2.1(123) Liquor store hours.

2.1(1) The official opening hours of stores shall be as follows: Class A stores open at 10:00 A.M. and close at 8:00 P.M. Class B stores and Class C stores open at 11:00 A.M. and close at 8:00 P.M. Class D stores open at 12:00 noon and close at 6:30 P.M. each day except Saturday when they close at 8:00 P.M. All store hours will be stated unless otherwise assigned different hours by the commission.

2.1(2) It shall be unlawful to transact the sale or delivery of any liquor before opening or after closing hours except that sales may be made to permittees already in the store before the closing time.

2.2(123) Prospective employees—physical examination. Before anyone can become a full-time employee of the Iowa liquor control commission, he or she may be required to submit to a physical examination by a doctor approved by the commission, the expense of this examination to be borne by the prospective employee.

2.3(123) Conditions of employment—temporary. All employees of the commission shall be originally appointed on a temporary or try-out basis to test their capability, qualifications and fitness for the position involved for a period of six months before being designated as "regular" employee. Temporary employees are subject to dismissal or transfer upon recommendation of department heads. Compensation during tryout period may be fixed at a figure below the salary paid "regular" employees for the same kind of work.

2.4(123) Conduct of employees. Any employee of the commission who consumes alcoholic liquor upon the premises where employed, regardless whether said liquor shall have been obtained from the commission or otherwise acquired, shall be relieved of his duty, and immediately discharged from the employ of said commission, and any employee employed by the commission who reports to duty intoxicated, shall be immediately discharged from such employ.

2.5(123) Reserved for future use.

2.6(123) Salaries, vacations and leaves of absence.

2.6(1) "Salaries specifically provided for in an appropriation Act of the general assembly shall be in lieu of existing statutory salaries, for the positions provided for in any such Act, and all salaries shall be paid in equal monthly or semimonthly installments and shall be in full compensation of all services, except as otherwise expressly provided. All employees of the state, including highway maintenance employees of the state highway commission are granted one week's vacation after one year's employment and two weeks' vacation per year after two or more years' employment,

with pay. Leave of absence of thirty days per year with pay may be granted in discretion of the head of any department to employees of such department when necessary by reason of sickness or injury; unused portions of such leave for any one year may be accumulative for three consecutive years."

2.6(2) Employees of the Iowa liquor control commission are, after one full year's employment, granted one week's vacation with pay during their second year of employment; and after two years of employment are granted to two weeks' vacation with pay during their third year of employment and three weeks' vacation will be granted after ten years of employment.

2.6(3) Provided, however, that with the approval of the department head, vacations can be taken any time between January 1 through November 15 and if not so taken shall be deemed to have been waived for the year. All vacations must be taken in periods of not less than one week.

2.6(4) Vacations are granted—not earned and are not to be considered as any part of earned compensation. Nor are they accumulative from year to year.

2.6(5) Department heads are to advise with the employees of their departments and arrange schedules of vacation to conform as nearly as may be with the wishes of the employee and the efficient conduct of departmental work.

2.6(6) Exceptions to the foregoing rules may be had only upon written request to the commission, approved by the department head.

2.7(123) Limitations on sales. No liquor shall be sold to (1) any person with any portion of whose subsistence is dependent upon either public or private charity or any portion of whose subsistence is dependent upon relief work furnished by city, county, state or federal government, (2) habitual drunkards, (3) any person who resells or otherwise uses the liquor purchased contrary to the laws of the state.

2.8(123) Duplicate permits. Before issuing a duplicate permit, vendors and other employees authorized to issue them shall, by inquiry of the applicant and by such other investigation as may be necessary, make reasonably certain that the permit to be replaced by the duplicate has been lost, destroyed or stolen, and for such purpose they may require a written affidavit, sworn to be the applicant, reciting the facts and circumstances as to such loss, destruction or theft.

2.9(123) Names and purchases of permittees confidential. The names of permit holders, and the record of sales to them, shall be kept confidential by the commission and its employees, except that the commission may, in its discretion, authorize examination of the files and records of such matters by law enforcement officers and make information in regard to such matters available to such officers.

2.10(123) Sale or brand information.

2.10(1) No accounting or statistical data relative to liquor sales, liquor inventories, and operations of the commission shall be furnished, to anyone outside the commission's organization except as herein provided.

2.10(2) The comptroller's office shall furnish each month to the National Alcoholic Beverage Control Association, Washington, D. C., a report showing liquor sales by code number, in units and retail sales value. Similar information is now being supplied to this association by all state liquor control boards.

2.10(3) Any advertising agency, any representative of a liquor vendor or anyone seeking information concerning sales or inventory of any liquor code number sold by this commission, or anyone making inquiry, verbal or written, concerning financial or operating figures of the commission shall be referred to members of the commission.

[Filed December 22, 1961]

CHAPTER 3

TRADE PRACTICES

3.1(123) Solicitation of employees prohibited.

3.1(1) Manufacturers, wholesalers or distributors of alcoholic liquor, and their servants, agents and representatives, shall not solicit either in person, by mail or otherwise, vendors, or the employees of the commission's stores for the purpose or with the intent of furthering the sales of a particular brand or brands of merchandise as against another brand or brands of merchandise.

3.1(2) No employee of the commission shall attempt to influence any customer of any commission store to purchase any particular brand of alcoholic liquor in preference to any other brand.

3.1(3) No liquor salesman shall be permitted to transact any business in person with employees of the commission.

[Filed December 22, 1961]

CHAPTER 4

TRANSPORTATION AND WAREHOUSE

4.1(123) Transportation of liquor.

4.1(1) Shipment of intoxicating liquor made by or consigned to the Iowa liquor control commission anywhere within the state of Iowa may be received, transported and delivered to such consignee by any common carrier without compliance or requiring compliance with sections 125.16, 125.20, 125.22 and 125.33, of the Code.

4.1(2) Any common carrier may receive for transportation, and transport and deliver tax-free alcohol consigned to a holder of a permit from the United States government authorizing such holder to purchase tax-free alcohol; provided, however, that in respect of such ship-

ments compliance shall be had with sections 125.16, 125.20, 125.22, of the Code; provided further, that such common carrier shall make to the Iowa liquor control commission report of each such shipment showing date thereof to whom and where made, and the character and quantity of such shipment.

4.1(3) Any common carrier may receive for transportation, and transport and deliver sacramental wines to holders of clergymen's permits issued under and pursuant to chapter 134, of the Code, provided the transportation thereof and delivery to the consignee is in conformity with the provisions of said chapter.

4.1(4) Any common carrier may receive for transportation, and transport and deliver shipments of intoxicating liquors consigned by either a wholesaler, distiller, rectifier, or blender holding a license as such, issued by this commission and consigned to a point outside of the state of Iowa without compliance or requiring compliance with sections 125.16 or 125.20, of the Code.

4.1(5) Any common carrier may receive for transportation, and transport and deliver shipments of intoxicating liquors made by or consigned to wholesalers, distillers, rectifiers, blenders and manufacturers holding a permit issued by this commission; provided that in respect to such shipments and the delivery thereof, compliance shall be had and required with sections 125.16, 125.20, and 125.22, of the Code and provided further that promptly upon arrival of any such shipment at the delivery point, the carrier shall report to the commission at Des Moines the purported amount and character thereof, and the name and address of the consignor and consignee.

4.2(123) Rules and regulations as between shippers and this commission.

4.2(1) *Shipment into state.* Shipments of alcoholic liquors, wines, and malt beverages can only be made into the state of Iowa by out-of-state vendor against purchase order issued by the Iowa liquor control commission. Purchase orders require three signatures which shall be those of the three commissioners if present. In the event of one or two of the commissioners being absent the secretary or comptroller shall sign. Shipments can only be made to state warehouse, Camp Dodge, Grimes, Iowa.

4.2(2) *Purchase order and requirements.* The original copy of the purchase order and a duplicate acknowledgment copy are mailed direct by the Iowa liquor control commission to the vendor. The shipping plant will execute the acknowledgment copy and return same direct to the Iowa liquor control commission duly signed.

4.2(3) *State certification label and affixing thereof.* The Iowa liquor control commission certification labels, (state seals) must be affixed to the bottle on a smooth surface so that it will adhere without wrinkles. It is preferred that the label be affixed to a protective space slightly above the shoulder so that it will not

be damaged in rubbing against another object. The label should not overlap the federal strip stamp nor other bottle labels. Do not affix the seal on the bottom, back, or below the shoulder in an unprotected position on the bottle.

In such instances where it is not possible for the vendor to affix the seals to the bottles at the time of shipping, or bottles sent to the commission as stated in subrule 5.2(3), or bottles sent to the commission for the sole purpose of chemical analysis and sampling of proposed new listings, the following procedure is hereby adopted by the commission:

a. Delivered merchandise at the commission warehouse, Camp Dodge, Grimes, Iowa, not bearing state of Iowa seals, shall have seals placed upon said merchandise by warehouse employees. Seals will not be disbursed and charged to the warehouse until receiving reports have been received in the central office, and bear the notation that seals are not on said merchandise.

b. Merchandise received in the central office for the purpose of new listings, for chemical analysis, changes in proof or formula, shall be addressed in care of "Chairman, Iowa Liquor Control Commission, East 7th and Court Avenue, Des Moines, Iowa", and if said merchandise does not bear the Iowa seal, the chairman shall issue orders, to place upon said merchandise an Iowa seal, to record the receipt of the merchandise to the inventory, to make written notice of the merchandise and seal number to the commission, which in turn shall, during one of its commission meetings, make note of and place into the minutes of the meeting, the receipt of this merchandise, seal numbers so allocated and the purpose for which received.

c. Merchandise located in the state stores, not bearing seals, or seals having been damaged, shall be handled through the merchandise manager in charge of stock distribution. An accurate and up to date inventory of all seals in his possession must be retained by the merchandise manager, and will be subject to audit at all times by the liquor commission and the state auditor.

4.2(4) Bottle-label requirements and registration. After the type of container and labels submitted are approved by the Iowa liquor control commission for use on shipments into Iowa no change may be made in the type of container or labels without the expressed approval of the commission. All labels must conform to the regulations of the Federal Alcohol Administration.

4.2(5) Standard case code label. All shipments of alcoholic liquors, wines, etc., consigned to the Iowa liquor control commission must have affixed to each shipping case, a standard case code label as adopted by the industry advisory committee for control states. Affix the standard case code label to the end of the case and to that end of the case which will place the government (serial number) side on your left as you stand facing the case. Affix the label in the upper left-hand corner of the designated end of the case and about

one-quarter inch away from the edges to prevent fringing. On such merchandise where serial numbers are not used, affix the standard case code label on the recognized end of said case. This will permit the warehouse to tier cases with the end with the standard case code label outward and the government or serial number side on the left, as you stand facing the tier of cases.

Insert in the space provided on the standard case code label, the purchase order number of the Iowa liquor control commission covering the specific shipment. This reference may be inserted by rubber stamp or printed as may meet the convenience of the seller. Purchase order number should not exceed one-half inch in height or be less than three-eighth of an inch in height.

4.2(6) Notification—changes in age, proof, formula. Whenever consent has been given by the Iowa liquor control commission for a change in either age or proof, the supplier must notify the commission at the time the first shipment goes forward, giving the new age or proof together with car number and initial, date of shipment, etc. Failure of the shipper to give this notification shall mean that shipper shall assume all cost of necessary inconvenience suffered by the Iowa liquor control commission as a result of the changes made. Letter covering this advice should be forwarded as follows:

Original to:
Commissioner
Iowa Liquor Control Commission
East 7th & Court Avenue
Des Moines 8, Iowa
Copy to:
Merchandise Manager
Iowa Liquor Control Commission
East 7th & Court Avenue
Des Moines 8, Iowa

4.2(7) Car loading plan. Be as consistent as possible in keeping codes together and yet keep cases properly and safely braced.

4.2(8) Standard manifest of liquor shipment. Standard manifest of liquor shipment on typewriter, (or its equivalent as to legibility) and handled as follows:

a. Original to go forward with shipment.
b. Duplicate to accompany copy of forwarding advice furnished to Superintendent of Warehouse, Camp Dodge, Grimes, Iowa.

4.2(9) How to consign shipments. All shipments to the Iowa liquor control commission are to be forwarded on straight bill of lading. The original bill of lading is to be retained in the files of the shipping plant for future use in supporting claims, etc. The signed memorandum copy of the bill of lading is to be forwarded to invoice department to be attached to the invoice when prepared and mailed to Iowa. Freight rate must be shown on the bill of lading in the proper place.

4.2(10) Prepaid freight and freight bill. Under the sales agreement with the Iowa liquor control commission, the goods are sold on a delivered price basis at their warehouse

railroad side track. Freight charges must accordingly be fully prepaid to destination by distillers' shipping plants. The shipping plant will retain the prepaid bill and not forward it to Iowa.

4.2(11) Forwarding advice. Upon forwarding shipment the shipper shall send by First Class Mail such advice showing therein:

- a. Shipping Point
- b. Shipping Date
- c. Car No.
- d. I.L.C.C. purchase order Nos.
- e. Cases of Code
- Cases of Code
- Cases of Code

The above advice should be directed to:

Commission Secretary
Iowa Liquor Control Commission
East 7th & Court Avenue
Des Moines 8, Iowa

Copies of above advice should be sent under separate cover to each of the following:

- *Superintendent of Warehouse
Iowa Liquor Control Commission
East 7th & Court Avenue
Des Moines 8, Iowa
- *together with duplicate of manifest
Merchandise Manager
Iowa Liquor Control Commission
East 7th & Court Avenue
Des Moines 8, Iowa

4.2(12) Mail forwarding advice:

Original to:

....., Commission Secretary
Iowa Liquor Control Commission
East 7th & Court Avenue
Des Moines 8, Iowa

*Copy to:—(with blue manifest attached thereto)

Superintendent of Central Warehouse
Iowa Liquor Control Commission
East 7th & Court Avenue
Des Moines 8, Iowa

*Copy to:
Merchandise Manager
Iowa Liquor Control Commission
East 7th & Court Avenue
Des Moines 8, Iowa

4.2(13) Invoicing instructions. Shipping plant is to use its own regular invoice form as no special invoice form is supplied by the Iowa liquor control commission. Iowa liquor control commission's purchase order number must be shown on the invoice and in the proper place. Car initial and number must be shown without fail and complete routing. Iowa code number must be shown on the same line with the particular brand and size and not placed at the foot of the invoice. The various items on the invoices must be listed in consecutive order of the code numbers, namely, the item carrying the lowest code number must be the first item appearing on the face of the invoice, etc. If freight charges are prepaid the charge may be added to the invoice for

*Each copy to be mailed separately.

liquor, showing total weight, applicable rate and extension. The signed memorandum copy of the bill of lading is to be attached to the invoice when mailed to Iowa. Shipping plant will retain in its files the original bill of lading. After completing the invoice to the above extent, the shipping plant must show the following claimant's affidavit typewritten across the face of the original and duplicate of the invoice and to have same signed.

Claimant's Affidavit

STATE OF
..... COUNTY ss:

We,, the within claimant, do state that items for which payment is claimed were furnished under authority of the law, that the charge is just and lawful and that the same is wholly unpaid.

.....
Claimant

The invoice in duplicate carrying the above claimant's affidavit together with signed memorandum copy of the bill of lading is to be mailed immediately to: (Also see following note)

Accounting Department
Iowa Liquor Control Commission
East 7th & Court Avenue
Des Moines 8, Iowa

NOTE: Shipping plant must be careful to observe the special requirements of Iowa and forward all shipping papers complete, attached together, and in the one envelope to the Accounting Department, Iowa Liquor Control Commission, East 7th & Court Avenue, Des Moines 8, Iowa, so that same will be received by the time shipment arrives. A complete set of shipping papers to the accounting department will comprise the following:

- a. Invoice in duplicate with claimant's affidavit executed thereon.
- b. Acknowledgment of order duly executed.
- c. Signed memorandum copy of bill of lading.

4.2(14) For correspondence purpose:

Chairman
Commissioner
Commissioner
Commissioner Secretary
Comptroller
Assistant Comptroller
Supervisor of Permit Department
Superintendent of Central Warehouse
Merchandise Manager

[Filed December 22, 1961]

CHAPTER 5
PURCHASES

5.1(123) Procedure for presentation of new items—hearings.

5.1(1) The following information is furnished for the convenience and guidance of distillers, rectifiers and vendors of alcoholic liquors wishing to submit their products to the

Iowa liquor control commission for consideration and possible listing.

5.1(2) The form of liquor control in effect in Iowa is that of the "State Monopoly." This commission operates its own retail stores; all retail sales are by package for off-premises consumption.

5.1(3) All forms of alcoholic liquors whose alcoholic content exceeds five percent by weight come under the jurisdiction of this commission. Beers whose alcoholic content does not exceed five percent by weight are defined by statute as "Nonintoxicating" and are sold under a system of private license administered by the Iowa state tax commission, cigarette and beer tax division.

5.1(4) At the discretion of the commission a period of time is set aside as hearing dates concerning new listings, distillers, rectifiers and vendors of alcoholic liquors will be notified by the commission, and appointments for such hearings should be made through the office of the secretary for the commission.

5.1(5) All concerns selling liquor to the state shall furnish to the commission a list of all officers and directors, if a corporation, or a list of all partners of a partnership, and also the name of the agent representing the concern within the state.

5.1(6) No manufacturer, wholesaler or distributor of liquor, or agent or representative thereof, shall solicit either in person, by mail or otherwise, any employee of the commission, for the purpose or with the intent of furthering the sale of a particular brand or brands of merchandise as against another brand or brands of merchandise, and that at no time will any manufacturer, wholesaler, distributor, or their representative call upon or make contact personally with the commission or a member of the commission more than three times in any one year, unless so requested to do so by the commission, and that no manufacturer, wholesaler, distributor or representative of such manufacturer, wholesaler or distributor shall give away any alcoholic liquor of any kind or description or anything of value to any person in the employ of the liquor control commission. This last provision shall not prevent any contribution to any college, university, or any research project for use in combating and studying alcoholism.

In relationship to the above, no member, secretary, officer or employee of the commission shall accept or receive any gift of alcoholic liquor or other things of value from any manufacturer, wholesaler or distributor doing business with the commission or seeking to do business with the commission, and that no member of the Iowa liquor control commission, secretary, officer or employee of the commission shall at any time give or sell any sample liquor, or liquor received for chemical analysis to any person.

5.1(7) No agent or representative of any manufacturer, wholesaler or distributor of liquor shall visit any state liquor store except for the purpose of making a purchase in the usual manner, as any other customer, and such person shall not enter any warehouse, store of the commission for the purpose of sales promotion or to secure information regarding inventory or any other matter relating to sales.

5.1(8) Upon violation of any of the foregoing regulations by any agent or representative, the commission shall demand the removal of such agent or representative from any further activities in the state and may delist his company's products.

5.1(9) It shall be the duty of the secretary of the commission to list all brands submitted for listing with the comparison of the price offered with prices quoted to other states in a permanent book. This permanent book to be kept in office of buyer for perusal by commissioners at any time.

5.2(123) Liquor samples.

5.2(1) It shall be the duty of the Iowa liquor control commission, when a brand of liquor has been accepted for testing by the commission, to forward samples to the chemist for analysis. Such brand shall be subject to final approval by the commission after receiving a chemist's report.

5.2(2) Distillers, rectifiers and vendors of alcoholic liquors must have their presentation made before the Iowa liquor control commission by some responsible officer of their organization such as president, vice-president, secretary, comptroller or general sales manager, and they may display samples to the commission during interviews not to exceed more than two bottles of each item. The commission reserves the right to establish a time limit on submission made. This rule is established as a means of shortening interviews.

5.2(3) When a distiller wishes to change the formula or price of a brand already listed with the commission, he must submit new quotations thirty days prior to the effective date. If a formula change, the distillers must forward two bottles to the commission for chemical analysis and sampling before the commission accepts the formula change.

5.2(4) In June and December of each year, the commission shall order all remaining samples disposed of by transfer to stock or by destruction, or by transfer to hospitals or state institutions. The commission shall keep a written record of the method of disposition of all samples.

5.3(123) Purchase of liquor.

5.3(1) Every purchase order for alcoholic liquors shall be signed by two or more members of the commission, or, in the absence of one of them the secretary or comptroller may sign.

5.3(2) The initial purchase of a brand of liquor not currently stocked shall be made only upon the formal resolution of the commission authorizing said purchase. The commission shall enter into no agreement for the receipt of "bonus" cases of liquor as consideration for quantity purchases. The commission may, however, accept discounts in price given in consideration for quantity purchases.

5.4(123) Purchase of equipment and supplies.

5.4(1) In purchasing fixtures, equipment, merchandise, and supplies for the commission offices and state liquor stores, price and quantity being taken into consideration, Iowa made products shall be given preference.

5.4(2) Every purchase order for supplies and equipment in an amount greater than one hundred dollars shall be approved by the commission. Purchase order for supplies and equipment in an amount of one hundred dollars or less may be approved by the purchasing agent. After required approval for the purchase of items requisitioned has been obtained, the purchasing department shall obtain written bids, at least three in number, if possible, from suppliers who are able to supply the required article. Bids may be dispensed with on purchases amounting to one hundred dollars or less.

5.4(3) *Preparation of purchase orders.* After required approval of purchase requisitions has been obtained, the purchasing department shall prepare in quintuplicate Form O-1, purchase order. The five copies of Form O-1, purchase order should be used as follows:

1st copy (white)—For forwarding to the supplier.

2nd copy (white)—For forwarding to the supplier to obtain his acknowledgment of quantities, price quotations, etc. The supplier should sign the acknowledgment copy and return it to the purchasing department.

The purchasing department, after making notation on its records, should forward the acknowledgment copy to the accounting department, where it will be filed with the receiving report and the invoice covering the purchase.

3rd copy (blue)—For forwarding to the warehouse receiving clerk for use in checking the items delivered by the supplier against the items ordered. The warehouse receiving clerk should sign the third copy of the purchase order upon delivery of the items listed thereon and forward it to the accounting department.

4th copy (pink)—For filing in the purchasing department.

5th copy (yellow)—For filing in the accounting department.

5.4(4) No employee of the commission shall make any representation for or on behalf of the commission for the purchase or lease of premises or equipment and supplies unless

authority in writing is specifically given. No agreement for the construction of buildings or equipment for use of the commission shall be authorized unless formally approved in advance by the commission.

[Filed December 22, 1961]

CHAPTER 6

LIQUOR CONTROL LICENSES

6.1(123) Improper conduct.

6.1(1) *Illegality on premises.* No licensee, his agent, or employee shall engage in any illegal occupation or illegal act on the licensed premises.

6.1(2) *Co-operation with law enforcement officers.* No licensee, his agent, or employee shall refuse, fail or neglect to co-operate with any law enforcement officer in the performance of such officer's duties to enforce the provisions of Title VI of the Code and the rules promulgated thereunder.

6.1(3) *Immoral activities.* No licensee, his agent, or employee shall knowingly allow in or upon his licensed premises any improper conduct, disturbances, lewdness, immoral activities, indecent, profane or obscene language, songs, entertainment, literature, pictures or advertising material, or cause to have printed or distributed any lewd, immoral, indecent, or obscene literature, pictures, or advertising material.

6.1(4) *Molesting patrons.* No licensee, his agent, or employee shall knowingly allow in or upon his licensed premises the annoying or molesting of patrons or employees by other patrons or employees, nor any accosting or soliciting for immoral purposes.

6.1(5) *Frequenting premises.* No licensee, his agent, or employee shall knowingly permit his licensed premises to be frequented by or to become the meeting place, hangout, or rendezvous for known prostitutes, homosexuals, vagrants, or those who are known to engage in the use, sale or distribution of narcotics or in any other illegal occupation or business.

This rule is intended to implement section 123.46 of the Code.

6.2(123) *Violation by agent, servant, or employee.* Any violation of the within rules of the Iowa liquor control Act as amended, by any employee, agent, or servant of a licensee shall be deemed to be the act of said licensee and shall subject the liquor license of said licensee to suspension or revocation.

This rule is intended to implement sections 123.32 and 123.46 of the Code.

6.3(123) *Gambling evidence.* The presence of any gambling device, machine or apparatus referred to in section 123.46, as amended, upon the premises of any establishment licensed by the commission shall be prima-facie evidence of a violation thereof.

This rule is intended to implement sections 123.32 and 123.46 of the Code.

6.4(123) Bars and tables. No licensee shall serve to or permit any patron to consume any alcoholic liquor unless such patron is either seated or standing at a bar or seated at a table or counter.

This rule is intended to implement sections 123.43 and 123.46 of the Code.

6.5(123) Sanitation.

6.5(1) All establishments that shall come within the purview of the Iowa Liquor Control Act as amended and that are to be erected in the future shall conform to all of the within rules.

However, all establishments in existence on midnight, July 3, 1963, that come within the purview of the Iowa Liquor Control Act as amended, that are now in compliance with their respective cities, towns or county regulations pertaining to health and sanitation, shall be deemed in compliance with the within rules pertaining to sanitation. However, these establishments shall conform to the within regulations in regard to health and sanitation on or before 12:00 A.M., July 4, 1963.

6.5(2) Water. All licensed establishments shall be equipped with hot and cold running water from a source approved by an authorized health department.

6.5(3) General cleanliness.

a. All bars, tables, counters, coolers, extra beer tap rods, refrigerators, and all other fixtures or equipment, and all basements, rooms or other places used to serve or store beer, wine or liquor, shall be kept in a clean and sanitary manner at all times.

b. All open windows, doors and other openings to the outside shall be screened and protected against flies.

6.5(4) Licensees and employees shall wear clean clothing and be clean about their person. No person or persons who have any contagious or infectious disease of any kind are allowed to operate or work in such a place of business. Proprietors are held responsible, and any violation will be prosecuted under the state law. No person shall prepare or serve food who is infected with any communicable disease. Smoking by proprietors, cooks and help is strictly forbidden while preparing or serving food. Proprietors are held responsible, under the state law, when help violates this rule. Female employees should wear hair nets at all times while preparing or serving food and male employees should wear caps while preparing the food.

6.5(5) Utensil cleansing.

a. Hot water method. All utensils must be thoroughly cleansed before sterilization. Immersion for at least two minutes in clean, hot water at a temperature of at least 170° F. or for one-half minute in boiling water. Unless actually boiling water is used an approved

thermometer shall be available convenient to the vat. The pouring of scalding water over washed utensils shall not be accepted as satisfactory compliance. Where hot water is used for bactericidal treatment there shall be provided a hot water heater (preferably controlled by a thermostat) capable of maintaining a water temperature of at least 170° F. in the vat at all times during business hours. The heating device may be integral with the immersion vat. It is considered that even in the case of roadside stands hot water may be obtained through the use of gasoline or kerosene stoves, which may, if the wash and rinse vats are correctly constructed, be placed directly thereunder. Care shall be taken in the treatment of utensils by immersion in hot water to prevent the trapping of air in the container, thus preventing contact with the entire surface of the utensil. This may be accomplished by placing all glasses, cups and utensils in a venting position so that air will not be trapped. All glasses shall be inverted for drying on a corrugated surface and remain so until used. The use of drying towels is not approved.

b. Chlorine method. All utensils must first be thoroughly cleansed in water containing a good chemical cleanser, then immersed in a chlorine solution containing one-hundred ppm of available chlorine for a period of two minutes. At no time shall the solution be used after the strength of same has been reduced below fifty ppm. Fresh solution shall be made daily and shall not be reused on any succeeding day. In making the chlorine solution, follow the instructions on the label of the commercial product used. If a third rinse is used to relieve the utensils of the chlorine taste, the rinse must contain not less than thirty ppm of available chlorine. The department inspector shall satisfy himself by the use of the Orthotolidins test that all solutions in actual use are of the required available chlorine strength. Care shall be taken in the treatment of utensils by immersion in chlorine rinse to prevent the trapping of air in the container, thus preventing contact with the entire surface of the utensil. This may be accomplished by placing all glasses, cups and utensils in a venting position so that air will not be trapped. All glasses shall be inverted for drying on a corrugated surface and remain so until used. The use of drying towels is not approved.

c. Quaternary ammonium compound method. All utensils must first be thoroughly cleaned, using a good detergent, not soap, then immersed in a rinse containing two hundred ppm of a quaternary ammonium compound for a period of at least one hundred fifteen seconds. At no time shall the solution be used after the strength of same has been reduced below one hundred ppm. Rinse tank shall be filled daily with fresh solution and more often if the carry-over of water from previous tank is sufficient to cause a dilution of one hundred ppm, or if this rinse becomes dirty in appearance. If three tanks are used—(1) wash, (2)

rinse-warm water, (3) quaternary ammonium compound used. The department inspector shall satisfy himself, by the use of a standard test for the compound used, that the strength of all solutions in actual use are of the required strength. Care shall be taken in the treatment of utensils in immersion in quaternary ammonium compound, rinse in a manner to prevent the trapping of air in the container, solution shall contact the entire surface of the utensil. This may be accomplished by placing all glasses, cups and utensils in a venting position so that air will not be trapped. All glasses shall be placed bottoms up for drying on a corrugated surface and so remain until used. The use of drying towels is discouraged.

6.5(6) Toilets.

a. All licensed establishments dispensing alcoholic beverages shall provide properly designated flush toilets for each sex. Such toilets shall be so constructed as to assure complete privacy as to segregation of sexes. Toilets shall be easily accessible with no entrance through a kitchen or living quarters. Each toilet shall have outside ventilation, or be vented thereto (vents to be six inches in diameter).

b. The minimum floor space of each toilet shall comply with the specifications of local issuing authorities. The floor of each toilet shall be made of nonabsorbent material which shall extend four inches or more on the walls above the floor level.

c. Toilets for men shall have the following equipment: One wash bowl with running water, one intermittent or flush type wall urinal, one flush stool complete with cover (same to be segregated from urinal by a partition) for each one hundred patrons based on seating capacity of establishment, individual sanitary towels, plenty of soap, sanitary toilet paper and a metal receptacle for accumulated waste.

d. Toilets for women shall have the same equipment as for men except urinal, the amount of equipment to be determined the same as for men.

e. All toilets and wash rooms, including walls, floors, ceilings and fixtures shall be kept in a clean and sanitary condition; walls and ceilings shall be painted with a waterproof oil paint or enamel.

f. The foregoing regulations shall in no way be construed as to prevent any county, city or town from setting up an ordinance, more restrictive regulations governing such establishments within their jurisdiction.

This rule is intended to implement section 123.27 of the Code.

6.6(123) Display of license, permit, signs. All licenses, permits and signs issued by the Iowa liquor control commission must be framed under glass and shall be prominently displayed in full view of the licensed premises.

This rule is intended to implement section 123.27(6) of the Code.

6.7(123) Employees mingling with patrons. No licensee shall permit any employee engaged in the serving of food or alcoholic liquor in his establishment to eat, drink, or mingle with the patrons.

This rule is intended to implement section 123.46 of the Code.

6.8(123) Out-door service. Any licensee having tables out of doors may serve the type of alcoholic liquor permitted by his license at such tables, provided that such tables are immediately adjacent to the indoor premises.

This rule is intended to implement section 123.27(6) of the Code.

6.9(123) Allowing another to use permit. No licensee shall permit the sale of alcoholic liquor upon any portion of his premises for which he may have leased, sold or transferred the right of possession to another person not licensed by this commission.

This rule is intended to implement section 123.29 of the Code.

6.10(123) Defacing of seals.

6.10(1) Reuse of seals—destruction of such. No licensee shall reuse defaced or canceled Iowa liquor control commission seals from any box, case, package or container.

6.10(2) Every licensee when he has removed the last bottle or container from any original case or carton of alcoholic beverages, except beer, must destroy or deface any federal government marks, brands, tax stamps, or serial numbers.

This rule is intended to implement section 123.22(3) of the Code.

6.11(123) Retail price to include mix. The retail price of each alcoholic beverage drink sold by the licensee, his agents, servants, or employees shall include the price of the mix, ice or any fluids of any kind used with alcoholic drinks, and shall be prepared by the licensee, his agents, servants, or employees.

This rule is intended to implement section 123.100 of the Code.

6.12(123) Identification cards. At the time of application for a license, each applicant is requested to state the name or names of employees who will make purchases for the licensee from the Iowa liquor stores. Identity cards for these persons will be issued by the commission. If and when any of these persons are no longer in the employ of the licensee, it will be the duty of the licensee to return the identity card to the commission and a new identity card will be issued to the new employee.

This rule is intended to implement section 123.27(8, f) of the Code.

6.13(123) Advertising.

6.13(1) Brand name prohibited, except on menus, or bill of fare and price list. Advertising of spirits by brand name on the premises of a retail licensee is prohibited, except on menus or price lists. The printing, lettering, or type size shall be the same size for all brand names listed.

6.13(2) Political advertising. All political advertising designed to advance or promote the candidacy of any individual seeking public office at the hands of the electorate, such as poster signs, placards, handbills, or any other matter purporting to bring the public's attention to such candidacy, is prohibited in licensed establishments.

6.13(3) Advertising upon article. No retail licensee of the liquor control commission shall advertise upon any article which has utility or secondary use or purpose aside from its actual advertising value, nor shall any retail licensee give away any article or thing of value as advertising or in connection with his business: Provided, however, that this regulation shall not apply to book matches, nor to ordinary calendars which can be used only for calendars and to which no article or thing of value is attached; nor to specialty advertising carrying a prominent advertising imprint, for the primary purpose of advertising.

6.13(4) Window displays. No licensee of any class shall expose any alcoholic liquor or containers in window displays.

6.13(5) Limitation on wording and size of sign. No existing exterior sign and no exterior sign to be erected in the future which states that alcoholic beverages are sold or available, cannot exceed the size of ten and one-half square feet, and must not contain the word "liquor".

This rule is intended to implement section 123.47 of the Code.

6.13(5) Limitation on wording and size of sign. No existing exterior sign and no employee thereof shall accept any aid or assistance by gifts, loan of money, free merchandise, treats, discounts, premiums, or rebates or property of any description or other valuable things, from any alcoholic liquor distiller, wholesaler, warehouseman, or their agents.

6.14(1) Liquor distiller interest. No alcoholic liquor, distiller, warehouseman, or wholesaler, shall have any financial interest, directly or indirectly, in the establishment, maintenance, operation or promotion of business of any other licensee. No alcoholic distiller, broker or wholesaler, nor any stockholder thereof shall have any interest by ownership in fee, leasehold, mortgage, or otherwise, directly or indirectly, in the establishment, maintenance, operation or promotion of the business of any licensee. No alcoholic liquor distiller, broker, or wholesaler shall have any interest directly or indirectly by interlocking directors in a corporation or by interlocking stock ownership in a corporation in the establishment, maintenance, operation or promotion of the business of any licensee.

6.14(2) Donations by distiller. No alcoholic liquor distiller, broker, specially designated distributor or any other licensee shall directly or indirectly make any contribution or donation of any kind to any other licensee or specially designated distributor, nor to any club, lodge, order or any fraternal, social, pa-

triotic or religious organization for tickets, grand openings, anniversaries or otherwise, and no licensee shall directly or indirectly solicit or accept any such contribution or donation.

This rule is intended to implement section 123.40 of the Code.

6.15(123) Transfer of license to another location. No licensee shall transfer location of his license nor make any alterations in the physical structure of his licensed premises, nor install any additional bars, without the consent of the liquor control commission being first duly obtained.

This rule is intended to implement section 123.29 of the Code.

6.16(123) Prohibited storage of alcoholic beverages. No licensee shall permit alcoholic beverages, purchased under authority of his liquor control license, to be kept or stored upon any premises other than those licensed.

This rule is intended to implement section 123.46(9) and section 123.96 of the Code.

6.17(123) Inspection and audits of licensees. The premises of any licensee shall be open at all reasonable times for the inspection of auditors, accountants, investigators, agents of the enforcement division of the Iowa liquor control commission and other law enforcement agencies, and all stocks and books and records appertaining to the business of the licensee shall likewise be available for examination and inspection by such officers and agents at all reasonable times. A search warrant shall not be required for said inspection.

This rule is intended to implement sections 123.17(2) "n" and 123.27(6) "d" of the Code.

6.18(123) Orders of the commission. No licensee shall fail, refuse or neglect to obey any written order of the commission issued relative to the operation of his licensed establishment.

This rule is intended to implement section 123.17 of the Code.

6.19(123) Public notice of suspension. At the time of the suspension of any license by the commission there shall be placed in a conspicuous place in the front door or window of the licensed establishment, a placard furnished by the commission showing that the license of that establishment has been suspended by the commission and such placard shall also show the number of days and the reason for the suspension. No licensee or other person shall remove, alter, obscure or destroy said placard without the express written approval of the Iowa liquor control commission.

This rule is intended to implement section 123.32 of the Code.

6.20(123) Sales prohibited during period of suspension. No licensee shall sell, serve or allow consumption of any alcoholic beverages upon the licensee's premises during the period his license is suspended or revoked by the commission.

This rule is intended to implement section 123.32 of the Code.

6.21(123) Dram shop liability insurance requirements. For the purpose of providing proof of financial responsibility as required by section 123.95, of the Code, a liability insurance policy must meet the following requirements:

6.21(1) It must be issued by a company holding a current certificate of authority from the Iowa insurance commissioner authorizing the company to issue dram shop liability insurance in Iowa.

6.21(2) It must be countersigned by a resident insurance agent licensed by the issuing company.

6.21(3) It must provide the following minimum limits of liability, exclusive of interests and costs of actions, per accident: (For the purpose of this subsection, the word "accident" shall mean any one occurrence, on any one accident, or series of accidents or occurrences arising out of any one event or any one case of intoxication.)

a. Ten thousand dollars in respect to any one person who shall be injured in person.

b. Subject to the limitation above—stated as respects any one person, twenty thousand dollars in respect to all persons who shall be injured in person.

c. Five thousand dollars in respect to any and all persons who shall be injured in means of support.

6.21(4) It must contain a provision that the policy cannot be canceled by either the

company or the insured until after the Iowa liquor control commission at its office in Des Moines, Iowa, has received thirty days prior written notice of said cancellation.

6.21(5) Subject to these conditions and exclusions usually found in a policy of dram shop liability insurance, it must contain coverage to insure against all civil tort liability of the insured created under the provisions of Title VI, of the Code, as it now exists or may hereafter be amended.

6.21(6) A licensee shall be deemed to have furnished proof of financial responsibility as contemplated by section 123.95, of the Code, when it has filed with the liquor control commission at its office in Des Moines, Iowa, a properly executed copy of Form No. 10, a copy of which is attached hereto and by reference made a part hereof.

6.21(7) Copies of Form No. 10 shall not be deemed properly executed unless the authorized company representative executing the same shall first have filed with the Iowa liquor control commission a sample of his signature. Facsimile signatures will be acceptable.

6.21(8) Applications to post bond in lieu of providing a liability insurance policy to show proof of financial responsibility as contemplated by section 123.95, of the Code, must be made in writing to the Iowa liquor control commission and the form and the amount of such bond will be determined on each application individually.

LIQUOR—STATE OF IOWA
LIQUOR CONTROL COMMISSION
LIQUOR CONTROL LICENSEE
DRAM SHOP LIABILITY CERTIFICATE
OF INSURANCE
Filed With
IOWA LIQUOR CONTROL COMMISSION
East Seventh and Court
Des Moines 8, Iowa
(Execute in Duplicate)

THIS IS TO CERTIFY, that the _____
(Name of Company)
(hereinafter called Company) of _____ has issued to
(Home office address of Co.)
_____ of _____
(Name of Assured) (Address of Assured)
Policy No. _____ Effective from _____
to _____

The policy of insurance herein described contains coverage to comply with the provisions of Title VI, Code of Iowa, and all regulations of the Iowa Liquor Control Commission promulgated thereunder.

The policy described herein may be canceled by the company or the Assured giving thirty days notice in writing to the Iowa liquor control commission at its office, Des Moines, Iowa, said thirty days notice to commence to run from date notice is actually received at the office of the commission.

Whenever requested by the commission, the company agrees to furnish to the commission a duplicate original of said policy and all endorsements thereon.

Countersigned at _____
this _____ day of _____, 19____.

Iowa Resident Agent _____ Authorized Company Representative _____

6.22(123) Surety bond requirements. A five thousand dollar penal bond must be filed with the commission with each application for a liquor control license and must meet the following requirements:

6.22(1) It must be issued by a company holding a current certificate of authority from the Iowa insurance commissioner authorizing the company to issue bonds in Iowa.

6.22(2) It must be in penal sum of five thousand dollars to insure the payment of all taxes and penalties due the Iowa liquor control commission.

6.22(3) It must contain a provision for the principal and his surety to consent to the forfeiture of the principal sum of the bond in the event of the revocation of the liquor license held by the principal if said revocation is the result of a conviction of any violations of paragraphs "a", "d", "e" or "h" of subsection 4, of section 123.46 of the Code.

6.22(4) It must contain a provision that the bond cannot be canceled by either the principal or the surety until after the Iowa liquor control commission at its office in Des Moines, Iowa, has received thirty days prior written notice of said cancellation and the cancellation or notice thereof will be of no force and effect in the event of revocation.

6.22(5) A licensee shall be deemed to have furnished a surety bond as contemplated by section 123.27, when it has filed with the Iowa liquor control commission at its office at Des Moines, Iowa, a copy of Form L-11, a copy of which is attached hereto and by references made a part hereof.

6.22(6) Applications to post a bond in lieu of providing a surety bond as contemplated by section 123.27, must be made in writing to the Iowa liquor control commission and each application will be determined individually.

STATE OF IOWA
LIQUOR CONTROL COMMISSION
DES MOINES, IOWA

This bond issued in connection with an application for a Class _____ Liquor Control License.

BOND

KNOW ALL MEN BY THESE PRESENTS

That _____ of _____ County
(Principal) (City and/or County)

State of Iowa as Principal, and _____ of _____
(City and State)

as surety, are held and firmly bound unto the STATE OF IOWA in the penal sum of FIVE THOUSAND DOLLARS (\$5,000), lawful money of the United States, for the payment of which, in Des Moines, Polk County, Iowa, we bond ourselves, our successors and our legal representatives firmly by these presents.

THE CONDITION of the foregoing is such that the principal and his surety consent to forfeiture of the principal sum of said bond in event of revocation of the license held by the principal under the provisions of chapter 123, Code of Iowa, if said revocation is a result of a conviction of any violation of paragraphs "a," "d," "e," or "h" of subsection 4, of section 123.46, Code of Iowa. NOW, THEREFORE, if the said _____, shall well and truly observe and obey all of the provisions of Chapter 123, Code of Iowa, including the payments of all taxes as provided therein, then this bond shall be void, otherwise to remain in full force and effect. THIS BOND shall be effective on _____, 19____, and shall remain effective continuously without cumulative liability until canceled. This bond may be canceled by the principal or the surety by giving written notice to the other party and the Iowa liquor control commission at its office in Des Moines, Iowa, stating the date of cancellation, which in no event shall be less than thirty days after actual receipt of said notice; however, no cancellation shall be effective as to forfeiture in the event proceedings for the revocation of the principal's liquor control license have been or are commenced prior to the effective date of such cancellation.

Signed this _____ day of _____, 19____

Principal

Surety

NOTE: Surety on this bond must be by a surety company holding a current certificate of authority from the Iowa insurance commissioner.
Form L-11

This rule is intended to implement section 123.26 of the Code.

6.23(123) Alcoholic liquors levied upon or bankruptcy proceedings by licensee. Alcoholic liquors purchased and possessed by a liquor control licensee, and levied upon under execution on a valid judgment, or under a bankruptcy proceeding against such licensee, must be sold under the following provisions:

6.23(1) An inventory must be made of all alcoholic liquors and the sheriff, or other official, must contact the Iowa liquor control commission, or one of its duly authorized agents, furnishing them a copy of the inventory.

6.23(2) The commission, or its duly authorized agency, may purchase the entire stock, or any part thereof, of the alcoholic liquors levied upon under execution at a wholesale cost to the commission or arrange the disposition of the alcoholic liquors in a manner to be determined by the commission.

[This rule is intended to implement sections 123.17 and 123.16(9), of the Code]

6.24(123) The sentences, sections and provisions of these regulations are declared to be severable, and any portion which is declared inoperative for any reason by a court of competent jurisdiction shall in no way affect the remaining sentences, sections, or provisions of these regulations.

This rule is intended to implement section 123.37 of the Code.

[Filed October 1, 1963; amended January 13, 1966]

CHAPTER 7

OFF-PREMISE ADVERTISING OF DISTILLED SPIRITS

7.1(123) Application.

7.1(1) No person engaged in business as a producer, manufacturer, bottler or importer of distilled spirits, directly or indirectly, or through an affiliate, shall publish or disseminate or cause to be published or disseminated in any newspaper, magazine or similar publication any advertisement of distilled spirits, unless such advertisement is in conformity with these regulations: Provided, that these provisions shall not apply to the publisher of any newspaper, magazine, or similar publications, unless such publisher is engaged in business as a producer, manufacturer, bottler, importer, wholesaler, or retailer of distilled spirits, directly or indirectly, or through an affiliate.

7.1(2) These rules apply to all advertising of distilled spirits and wine not covered by preceding rules 6.13(123), which has application to so-called "on premises" advertising.

7.1(3) The commission hereby declares it to be commission policy that the commission itself shall not advertise distilled spirits or wine in any form or through any medium whatsoever.

7.2(123) Definitions. As used in these regulations, terms shall have the meaning ascribed below:

7.2(1) Advertisement. The term "advertisement" as used in this regulation includes any advertisement of distilled spirits through the medium of radio broadcast or telecast; or of newspapers, periodicals, or other publications; or of any sign or outdoor advertisement; or of any other printed or graphic matter, including trade booklets, menus, and wine cards.

a. Any label affixed to any container of distilled spirits or any individual covering, carton, or other wrapper of such container.

b. Any editorial or other reading matter in any periodical or publication or newspaper for the preparation or publication of which no money or other valuable consideration is paid or promised, directly or indirectly, by any person subject to these regulations.

7.2(2) Distilled spirits. "Distilled spirits" means ethyl alcohol, ethanol, or spirits of wine, including all dilutions and mixtures thereof, from whatever source or by whatever process produced, for beverage use, and shall include, but not be limited to, neutral spirits, whisky, brandy, rum, gin, vodka, cordials, and liqueurs or wine of whatever alcoholic percentage by weight or by volume.

7.2(3) Person. "Person" means any individual, partnership, joint-stock company, business trust, association, corporation, or other form of business enterprise, including a receiver, trustee or liquidating agent.

7.3(123) General requirements and regulations in the advertising of distilled spirits.

7.3(1) Mandatory statements.

a. Responsible advertiser. The advertisement shall state the name and address of the producer, manufacturer, bottler or importer responsible for its publication. Street name and number may be omitted in the address.

b. Class, type, and distinctive designation. The advertisement shall contain a conspicuous statement of the class and type, or other designation of the product corresponding with the complete designation which appears on the brand label of the product.

c. Alcoholic content. The alcoholic content shall be stated in the manner and form in which it appears on the labels of distilled spirits advertised.

d. Percentage of neutral spirits and name of commodity. In the case of distilled spirits (other than cordials, liqueurs, and specialties) produced by blending or rectification, if neutral spirits have been used in the production thereof, there shall be stated in the advertisement the percentage of neutral spirits so used and the name of the commodity from which such neutral spirits have been distilled in substantially the manner and form in which these statements appear on the labels of the

distilled spirits advertised. In the case of neutral spirits or of gin produced by a process of continuous distillation, there shall be stated in the advertisement the name of the commodity from which such neutral spirits or gin has been distilled substantially in the manner and form in which this statement appears on the labels of the distilled spirits advertised.

e. "Line" or "Brand" advertisements.

Where an advertisement does not mention a specific produce but merely refers to a class of distilled spirits (such as "whisky") and the advertiser markets more than one brand of distilled spirits of that class, or where the advertisement refers to several classes of distilled spirits (such as "whisky", "brandy", "rum", "gin", "liqueur", etc.) marketed under a single brand, the only mandatory information prescribed by this rule applicable to such advertisement would be the name and address of the responsible advertiser.

7.3(2) Conspicuousness of mandatory statements. Statements required by these regulations to be stated in any written, printed or graphic advertisement shall appear in lettering or type of a size, kind and color sufficient to render them both conspicuous and readily legible. In particular:

a. Required information shall be stated against a contrasting background and in type or lettering which is at least the equivalent of eight-point type.

b. Required information shall be so stated as to appear to be a part of the advertisement and shall not be separated in any manner from the remainder of the advertisement.

c. Where an advertisement relates to more than one product, the required information shall appear in such manner as to clearly indicate the particular products to which it is applicable.

d. Required information shall not be buried or concealed in unrequired descriptive matter or decorative designs.

7.4(123) Prohibited statements.

7.4(1) Restrictions. An advertisement shall not contain:

a. Any statement that is false or misleading in any material particular. An example of such prohibited statement is: Reproduction of medals or facsimiles of awards, when no medals or awards have been given or where the medals or awards were not given on a competitive or comparative basis.

b. Any statement that is disparaging of a competitor's products. An example of such prohibited statement is: "Contains no neutral spirits or alcohol," or "This rum will not turn dark in the bottle."

c. Any statement, design, device, or representation which is obscene or indecent.

d. Any statement, design, device, or representation of or relating to analyses, standards, or tests, irrespective of falsity, which is likely to mislead the consumer. An example of such prohibited statements is:

"Analyzed by the Laboratory and found to be pure and free from deleterious ingredients." or "Tested and approved." Signed by The Research Institute.

e. Any statement, design, device, or representation of or relating to any guaranty, irrespective of falsity, which is likely to mislead the consumer. Nothing in this section shall prohibit the use of any enforceable guaranty in substantially the following form: "We will refund the purchase price to the purchaser if he is in any manner dissatisfied with the contents of this package."

Blank to be filled in with the name of the person making guaranty.

f. Any statement that the product is produced, blended, made, bottled, packed, or sold under, or in accordance with, any authorization, law or regulation of any municipality, county, or state, federal or foreign government unless such statement is required or specifically authorized by the laws or regulations of such government; and, if a municipal, county, state, or federal permit number is stated; such permit number shall not be accompanied by any additional statement relating thereto.

g. Statements inconsistent with labeling. The advertisement shall not contain any statement concerning a brand or lot of distilled spirits that is inconsistent with any statement on the labeling thereof.

h. Curative and therapeutic effects. The advertisement shall not contain any statement, design, or device representing that the use of any distilled spirits has curative or therapeutic effects, if such statement is untrue in any particular, or tends to create a misleading impression. Examples of such prohibited statements are: "..... is good for you," or "Conducive to well being."

i. Place of origin. The advertisement shall not represent that the distilled spirits were manufactured in, or imported from, a place or country other than that of their actual origin, or were produced or processed by one who was not in fact the actual producer or processor.

j. Flags, seals, coat-of-arms, crests, and other insignia. No advertisement shall contain any statement, design, device, or pictorial representation of or relating to, or capable of being construed as relating to the armed forces of the United States, or of the American flag, any state flag, or of any emblem, seal, insignia, or decoration associated with any flag or the armed forces of the United States, nor shall any advertisement contain any statement, device, design, or pictorial representation of or concerning any flag, seal, coat-of-arms, crest, or other insignia, likely to falsely lead the consumer to believe that the product has been endorsed, made, or used by, or produced for, or under the supervision of, or in accordance with the specifications of the government, organization, family, or individual with whom such flag, seal, coat-of-arms, crest, or insignia is associated.

7.4(2) Other prohibited statements.

a. *Words "bond", "bonded", etc.* An advertisement for distilled spirits shall not contain the words "bond", "bonded", or "bottled in bond", "aged in bond", or phrases containing these or synonymous terms, unless such words or phrases appear upon the labels of the distilled spirits advertised, and are stated in the advertisement in the manner and form in which they appear upon the label.

b. *Statements of age.* An advertisement for distilled spirits shall not contain any statement, design, or device directly or by implication concerning age or maturity of any brand or lot of distilled spirits unless a statement of age appears on the labels of the advertised product. When any such statement, design, or device concerning age or maturity is contained in any advertisement, it shall include (in direct conjunction therewith and with substantially equal conspicuousness) all parts of the statement concerning age and percentages, if any, which appear on the label. However, an advertisement for any whiskey or brandy, which does not bear a statement of age on the label, or an advertisement for rum which is four years or more old, may contain general inconspicuous age, maturity or other similar representation, e.g., "Aged in wood", "Mellowed in fine oak casks."

c. The word "pure" except as part of the bona fide name of a permittee.

d. The terms "double distilled," "triple distilled," or any other similar term.

e. The code number or price.

7.4(3) Prohibitions in regard to wine.

a. *Restrictions.* An advertisement for wine shall not contain:

(1) Any statement of bonded wine cellar and bonded winery numbers unless stated in direct conjunction with the name and address of the person operating such winery or storeroom. Statement of bonded winecellar and bonded winery numbers may be made in the following form: "Bonded Winecellar No. _____," "Bonded Winery No. _____," "B. W. C. No. _____," "B. W. No. _____." No additional reference thereto shall be made, nor shall any use be made of such statement that may convey the impression that the wine has been made or matured under U. S. government or any state government supervision or in accordance with U. S. government or any state government specifications or standards.

(2) Any statement, design, device, or representation which relates to alcoholic content or which tends to create the impression that a wine is "unfortified" or has been "fortified," or has intoxicating qualities, or contains distilled spirits (except for a reference to distilled spirits in a statement of composition where such statement is required by these regulations to appear as a part of the designation of the product).

b. *Statement of age.* No statement of age or representation relative to age (includ-

ing words or devices in any brand name or mark) shall be made, except that:

(1) In the case of vintage wine, the year of vintage may be stated if it appears on the label.

(2) Truthful references of a general and informative nature relating to methods or production involving storage or aging, such as "This wine has been mellowed in oak casks," "Stored in small barrels" or "Matured at regulated temperatures in our cellars" may be made.

c. *Statement of bottling dates.* The statement of any bottling date shall not be deemed to be a representation relative to age, if such statement appears without undue emphasis in the following form: "Bottled in _____" (inserting the year in which the wine was bottled).

d. *Statement of miscellaneous dates.* No date, except as provided in paragraphs "b" and "c" of this section with respect to statement of vintage year and bottling date, shall be stated unless, in addition thereto, and in direct conjunction therewith, in the same size and kind of printing there shall be stated an explanation of the significance of such date: Provided, that if any date refers to the date establishment of any business, such date shall be stated without undue emphasis and in direct conjunction with the name of the person to whom it refers.

7.4(4) Other prohibitions.

a. *Use of insignia or reference to liquor control commission prohibited.* No liquor advertising shall use any insignia or other device that may be in use by the Iowa state liquor control commission, nor shall any such advertising refer to Iowa state liquor control commission.

b. *School programs.* No liquor advertising shall be carried in any programs for events or activities in connection with schools, colleges or universities, or publications designed for distribution primarily to undergraduates.

c. *Contests, lotteries, etc. prohibited.* No liquor advertising shall include, be connected with, or make reference to the conducting of any form of contest, lottery or the awarding of prizes, or premiums.

d. *Sound truck and aircraft advertising prohibited.* No liquor advertising shall be permitted by the use of sound trucks, skywriting, or banner towing by aircraft.

e. *Mailing forbidden.* No advertisement shall be distributed to consumers, through the medium of the United States mail or by distribution of circulars, provided, that this restriction shall not apply to newspapers or magazines.

f. *Picture screen advertising prohibited.* No advertising of distilled spirits shall be displayed upon the picture of any theater.

7.4(5) Additional restrictions, outdoor advertising.

a. In addition to the restrictions applicable to all advertising of distilled spirits set

out heretofore in these regulations, outdoor advertising shall be prohibited, if such advertising:

(1) Is primarily or especially appealing to children.

(2) Depicts any juvenile, or the likeness of a woman if such illustrations exploit the human form in an immodest, vulgar or sensuous manner.

(3) Depicts a person in the act of actually drinking distilled spirits.

(4) Depicts athletes, athletic events or competitive sports in which participants of competitive games or events are portrayed.

(5) Refers either directly or by influence to any firm, corporation, or association, or to any public character, past or present, as recommending, using or purchasing liquor unless such reference is incorporated directly in a copyrighted label or as a part of the registered brand name, provided, that no testimonial advertising of any kind shall be permitted.

(6) Refers to a brand of liquor not actually on sale in the state of Iowa.

(7) Uses any Biblical character, Easter or other religious or church sign or symbol except in relation to kosher wines; or uses for the purpose of exploiting the sale of liquor the name of any generally recognized holiday such as Christmas, New Year's Day, Mother's Day, Father's Day, Thanksgiving Day, Memorial Day, Independence Day, or state, national or local commemorative day, or depicts, names or implies in any manner whatsoever any animate character associated with such days: Provided,

nothing in this rule shall be interpreted to prohibit the use of nonreligious illustrations identified with such days, such as holly wreaths or borders, punch bowls, table settings; nor the publication of strictly institutional advertising or holiday greetings containing no stated, implied or associated reference to brand, label, product, slogan, manufacturer, supplier, or retailer, other than the signature of the manufacturer, supplier, or retailer, such signature to consist solely of the name of the manufacturer, supplier or retailer.

(8) Includes the words "bar", "bar-room", "saloon", or "booze."

b. Outdoor advertising shall be permitted by billboard, poster, or neon sign as allowed by these regulations if the copy used on such billboard, poster, or neon sign shall conform in all respects to the requirements hereinabove set forth and provided the locations of such advertising shall be limited as described in rule 1.4(5) "c," "d" and "e" of these rules.

c. All outdoor advertisements of distilled spirits shall be prohibited in any political subdivision of this state wherein the sale thereof may be contrary to law.

d. Outdoor advertising of distilled spirits shall be prohibited except in areas zoned for business or industrial use.

e. Outdoor advertising of distilled spirits is prohibited within 300 feet of churches, schools, playgrounds, and parks.

[Filed May 11, 1966]

MEDICAL LIBRARY

CHAPTER 1

USE OF LIBRARY

1.1(303) Borrowers. Adult residents of the state are entitled to borrow books by filling out an application card.

1.2(303) Loan period. The period of loan (except for reserve material) is two weeks; with the privilege of a two weeks renewal if at the time of request for renewal there are no other calls for the material. Student loans are for two weeks only.

1.3(303) Postage. The borrower pays the return postage on material sent through the mail.

1.4(303) Student loans. Students may borrow three volumes at a time, no two of which may be on the same subject. Student loans are not renewable. There is a fine of two cents per day for each piece of literature kept out over the loan period.

1.5(303) Reserve material. The librarian may place on reserve any material being used by classes or groups and restrict loans on such material to overnight or over the weekend. Such loans are to be returned by 12:30 P.M. of the day designated or a fine of twenty-five cents paid for each day each piece is kept out beyond the stated time.

1.6(303) Restricted material. Books purchased from the publisher under restrictive clause may be used only after application to and at the discretion of the librarian.

1.7(303) Forfeiture of privilege. Loss of books or journals without paying for same, defacing or mutilating material, three requests for return of material without results, or necessity of asking attorney general's aid to have material returned, bars from future loans.

1.8(303) Transients. Transients and those at hotels may borrow books by depositing the cost of the book or five dollars, which is refunded when the book is returned.

[Filed May 13, 1964]

MERIT EMPLOYMENT DEPARTMENT

CHAPTER 1 DEFINITIONS

1.1(19A) Definitions.

1. "*Absence without leave*" means any absence of a classified employee from duty without specific authorization, either before or after such absence.

2. "*Act or merit employment Act*" means the law creating the merit system of personnel administration.

3. "*Agency*" means any legally constituted board, commission, office, authority, agency, department or other branch of state government in which all positions are under the same appointing authority.

4. "*Agency promotional list*" means an eligible list of permanent employees of the agency, or duly established organizational unit thereof, established by examination from which promotions are made.

5. "*Allocation*" means the original assignment of a position to an appropriate class on the basis of duties and responsibilities assigned and performed.

6. "*Appointing authority*" means the officer, board, commission, person or group of persons having the power by virtue of a statute, or lawfully delegated authority, to make appointments to, or remove from employment in the state classified service.

7. "*Certification*" means the act of submitting the required number of available names on an appropriate eligible list to an appointing authority for the purpose of his making a selection in accordance with these rules.

8. "*Class*" or "*class of position*" means one or more positions, which are sufficiently similar in duties and responsibilities, that each position in the group can be given the same job title, require the same minimum qualifications as to education and experience, can be filled by substantially the same test of ability or fitness, and that the same schedule of pay can be applied with equity to all positions in the class under the same or substantially the same employment conditions.

9. "*Class specification*" means a descriptive and explanatory guide reflecting distinct characteristics of duties and responsibilities normally assigned to positions allocated to the class and the minimum qualifications requisite thereto.

10. "*Classification plan*" means the orderly arrangement of positions within the classified service into separate and distinct classes, so that each will contain those positions which involve substantially similar or comparable skills, duties and responsibilities.

11. "*Classified employee*" means an employee occupying a position in the classified service, or an employee currently on leave in accordance with established leave regulations.

12. "*Commission*" means the Iowa merit employment commission.

13. "*Demotion*" means a change of a classified employee from a position in a given classification to a position in a lower classification. Normally, the lower classification will have a lower entrance salary. Demotion may be voluntary or involuntary.

14. "*Department*" means the Iowa merit employment department.

15. "*Detail to special duty*" means the temporary assignment of a classified employee to perform the duties and responsibilities of a position other than the ones to which he is regularly assigned without prejudice to his rights in and to his regularly allocated position.

16. "*Director*" means the director of the Iowa merit employment department.

17. "*Eligible list*" means an officially promulgated list of eligibles for a class of position in the order of their final rating in an examination as provided herein.

18. "*Established position*" means a position duly approved by statute or the Executive Council which is funded and allocated to an appropriate class.

19. "*Examination*" means all the tests of fitness that are applied to determine eligibility of applicants for positions in any class in the classified service.

20. "*Geographic list*" means an officially established list of eligibles residing in a county, or other designated administrative area, in the order of their final rating in an examination.

21. "*Grievance*" means any expressed difference, dispute or controversy between an employee and the appointing authority or his representative with respect to circumstances and conditions which concern their working relationship in the agency.

22. "*Minimum qualifications*" means the requirements of training and experience and other qualifications, including those to be measured by an appropriate examination, as prescribed in the job specification for the class of position.

23. "*New position*" means a position not previously existing.

24. "*Open-competitive examination*" means an examination which permits the competition of persons who meet the minimum requirements of the official announcement for the class of position, and is not restricted to persons currently employed in the classified service.

25. "*Part-time position*" means a position requiring the services of an employee for less than a standard or nonstandard work week on a continuing basis.

26. "*Pay plan*" means a schedule of salaries or hourly wages established for the several classes recognized in the state classification plan.

27. "*Permanent employee*" means an employee who has completed the required pro-

bationary period or who has acquired permanent status in conformity with the Merit Employment Act.

28. "*Position*" means a group of specific duties, tasks and responsibilities assigned by the appointing authority to be performed by one employee; a position may be part-time or full-time, temporary or permanent, occupied or vacant.

29. "*Probationary employee*" means a person certified from a list of eligibles or employed through a work test appointment and serving a probationary period.

30. "*Probationary period*" means a working test period and is a part of the examination process following an original appointment, during which the employee is required to demonstrate his fitness for the position to which he is appointed by the satisfactory performance of the duties and responsibilities of the position to which appointed.

31. "*Promotion*" means a change in status of a permanent employee from a position in a lower classification to a position in a higher classification. Normally the higher classification will have a higher entrance salary.

32. "*Reallocation*" means the reassignment or change in the allocation of a position by raising it to a higher, reducing it to a lower, or moving it to another class of the same level on the basis of significant changes in the kind or difficulty of the tasks, duties and responsibilities in such position, or because of an amendment to the classification plan, and officially assigning to that position the class title for such appropriate class of position.

33. "*Reinstatement*" means the re-employment of a permanent employee as provided in these rules, or the placing of a probationary or permanent employee's name back on a list of eligibles as provided herein.

34. "*Statewide list*" means a list of eligibles for a class position, who have indicated their willingness to accept employment wherever a particular vacancy exists, ranked in the order of their examination scores.

35. "*Transfer*" means a change of a classified employee from one classified position to the same or a comparable classified position of equal rank, from one geographical location to another geographical location; from one agency to another agency.

[Filed June 9, 1970]

CHAPTER 2

STATE SERVICE AND ITS DIVISIONS

2.1(19A) Exempt service. The exempt service shall include those positions as determined by the commission in accordance with the provisions of section 19A.3. [Positions in the exempt service shall be listed in Appendix I of these rules and made a part hereof.*] The di-

rector may, upon request, assist and advise appointing authorities concerning salary rates appropriate for positions in the exempt service.

2.2(19A) Classified service. The classified service shall consist of all positions now existing or hereafter created and not included in the exempt service. There shall be in the classified service three divisions, to be known as Division "A", Division "B", and Division "C".

2.2(1) Division "A" shall include only those positions and employments for which is practicable to determine the merit and fitness of applicants by assembled examination.

2.2(2) Division "B" shall consist of all positions requiring peculiar and exceptional qualifications of a scientific, managerial, professional, or educational character and for which an unassembled examination may be used.

2.2(3) Division "C" shall include positions involving unskilled, semiskilled, domestic, attendant or custodial work.

The director shall assign each class in the position classification plan to Division "A", "B", or "C".

2.3(19A) Nonstate employment. Specialized personal services rendered by an individual to the state under contract as an independent contractor and as a part of, or incidental to, the individual's regular profession or occupation and not as a state employee shall be designated as nonstate employment and shall not be subject to the provisions of these rules. The appointing authority shall report each such employment to the director in such form and such detail as the director may require. If, after such investigation as he deems necessary, the director determines that the proposed employment is of such a nature as to constitute state employment, he shall so notify the appointing authority and the state comptroller and that notice shall constitute advice that such employment is not in conformance with the provisions of chapter 19A.

In evaluating contracts for personal services, the following guidelines shall be used:

2.3(1) Whether the contract is with a recognized existing organization rather than with an individual, and the organization has the facilities and expertise to fulfill the contract. However, a contract with an individual may be appropriate if he is an independent "entrepreneur".

2.3(2) Whether the contract clearly indicates the "independent contractor" concept with the agency having no direct administrative or supervisory responsibility of the day-to-day carrying out of the contract. So long as the agency has the right to control both the method and result of the services, the individuals involved cannot be considered as independent contractors.

*Pending.

2.3(3) Whether the contract includes a terminal date with the end product (report, service to be accomplished, etc.) clearly set forth.

2.3(4) Whether the agency is withholding various taxes from the individual's salary. If the individual is on the agency payroll and income taxes are withheld, it is obvious that the agency is the employer and the individual is not working for or as an independent contractor.

[Filed April 1, 1969]

CHAPTER 3 CLASSIFICATION PLAN

3.1(19A) Preparation, adoption and maintenance of the classification plan for the classified service.

3.1(1) The commission shall review agency recommendations, hear suggestions, ascertain the actual duties, tasks and responsibilities of all classified positions and adopt a uniform classification plan.

3.1(2) The classification plan shall set forth for each class of position a class title, definition, examples of work performed, minimum qualifications and special requirements that are necessary for satisfactory performance in the class. Personal qualifications commonly required of an employee in any class such as good citizenship, honesty, loyalty, sobriety, industry, amiability to supervision and willingness to co-operate with associates shall be implied for entrance into any class.

3.1(3) The classification plan shall be so developed and maintained that all positions which are substantially similar and comparable with respect to kind, difficulty and responsibility of work are included in the same class; that the same means of recruitment and appropriate examination method may be used in filling all positions within a class; and, that the same schedule of pay may be applied with equity to all positions in a class in the same geographical area.

3.1(4) The commission through co-ordination with, and the co-operation of, the agencies, shall from time to time review the classification plan and may add, combine, divide or abolish classes or revise the specifications of existing classes or establish new classes as the needs of the classified service so indicate. All of the aforementioned shall be submitted to the state comptroller, the governor and the executive council and approved by the executive council before they become effective. The director shall submit a schedule of classes of position reflecting the types of employment in each agency to the governor annually.

3.1(5) Each position in the classification plan shall be reviewed at intervals, or at the request of the appointing authority or by a permanent classified employee affected by the review to ascertain whether it is correctly

allocated. Decisions of the appeal board shall not be subject to review until significant changes in the duties and responsibilities of a position can be shown. Allocation or reallocation shall be made by the director. The appointing authority and permanent classified employees shall be notified in writing. Allocation or reallocation shall become effective on the first day of the pay period following the date of the director's notice of the action. An appointing authority or permanent classified employee affected by such allocation or reallocation, may within fourteen calendar days of notice, file a request in writing to the director for reconsideration stating the reasons supporting such request. The director shall act on the request within thirty calendar days. During such period, the original action shall be held until the director's final determination and notice thereof. Thereafter, allocation or reallocation shall become effective on the first day of the next pay period unless appeal is made as set forth in chapter 12 of these rules.

3.1(6) No allocation or reallocation will become effective, notwithstanding 3.1(5), until approval has been obtained from the state comptroller stating that such allocation or reallocation does not result in the expenditure of funds in excess of the amount budgeted for the department of the appointing authority concerned.

3.1(7) The commission may delegate to the director such of their duties as imposed under 3.1(19A) and subdivisions as they deem necessary or expedient for the needs of the classified service.

3.2(19A) Creation and allocation of new positions. When a new position, or positions, as approved by the executive council, are to be established, the appointing authority shall notify the director in writing and furnish job descriptions. The director shall study the duties and responsibilities of the new position, or positions, and determine the proper classification. If an appropriate classification does not already exist, he shall prepare a new class specification to cover the position or positions, and they shall be allocated and approved as set forth in 3.1(19A) of this chapter.

3.3(19A) Position reallocation. Whenever reorganization of an agency, or action of the executive council cause the duties of a position to change or a position appears to have been incorrectly allocated, the director shall upon his own initiative or at the request of the appointing authority or a permanent classified employee affected by the reallocation, investigate the duties of the position or positions in question. After conferring with the appointing authority and the classified employees involved and reviewing agency recommendations and suggestions, the director shall reallocate the position or positions to the appropriate class or classes in accordance with the provisions of 3.1(19A). Reallocation shall not be used to avoid the provisions of chapter 19A or

these rules dealing with layoffs, demotions, promotions or dismissals.

3.4(19A) Status of incumbents when positions are reallocated. In all cases of reallocation, the employee in the position when it is reallocated shall be entitled to serve therein with the classified status that he had in the position before its reallocation, provided he meets the minimum qualifications for the class to which his position is reallocated or if the duties and responsibilities of the position have not appreciably changed. If ineligible for appointment to the position as reallocated, he shall be transferred, promoted or demoted by appropriate action in accordance with the provisions of these rules. However, a classified employee shall not be required to meet the minimum qualifications, if his position is reallocated to a lower or comparable class. In any case in which the incumbent is ineligible to continue in the position, and he is not transferred, promoted or demoted, the provisions of these rules regarding separation shall apply.

3.5(19A) Class specifications. The class specification, along with classification standards and desk audits, shall be considered in allocating positions and specifications shall be interpreted as follows:

3.5(1) Class specifications are descriptive only and are not restrictive. The use of a particular expression of duties, qualifications, requirements or other attributes shall not be held to exclude others not mentioned but germane to the class concept.

3.5(2) In determining the class to which any position shall be allocated, the specification for each class shall be considered as a whole. Consideration shall be given to the general duties, specific tasks, responsibilities required and relationship to other classes as affording together a picture of the positions that the class intended to include.

3.5(3) A class specification shall be construed as a general description of the kinds of work characteristic of positions properly allocated to that class and not as prescribing what the duties of any position shall be, nor as limiting the expressed or implied authority of the agency, now or hereafter vested with the right to prescribe or alter the duties of any position.

3.5(4) The fact that all of the actual tasks and duties performed by the incumbent of a position do not appear in the specification of a class to which the position has been allocated shall not be taken to mean that the position is necessarily excluded from the class, nor shall any one example of a typical task taken without relation to other parts of the specification be construed as determining that a position should be allocated to the class.

3.5(5) Changes in minimum qualifications requirements shall have no effect on the status of incumbent employees.

3.6(19A) Position descriptions and notification of change in position content. Position descriptions shall be supplied and kept current by the appointing authority for each position under his jurisdiction on forms prescribed by the commission. Agencies shall give written notice to the director of material changes in the duties and responsibilities of any position.

3.7(19A) Assignment of lead-worker duties. Whenever a classified employee, who is performing the same duties as other employees in his class, is assigned limited supervisory duties such as distribution of work assignments, maintaining a balanced work load among a group and keeping record of work, production or attendance over employees in the same class or a class having the same entrance salary and which duties do not justify reallocation to a supervisory class in a higher pay range, the appointing authority may request the director to approve the position as a "lead-worker position".

3.8(19A) Position numbering system. The director in co-ordination with the office of the state comptroller shall develop a position numbering system that will uniformly identify the agency and position location, the class code number and the position number of each established position in the classified service.

[Filed September 18, 1970]

CHAPTER 4 PAY PLAN

4.1(19A) Preparation and adoption of the pay plan. The director, after consultation with appointing authorities, shall prepare and recommend to the commission a pay plan for all classes of positions in the classified service.

4.1(1) Factors to be considered in preparing the pay plan. Pay grades shall be related directly to the position classification plan for the classified service and shall be determined with due consideration to pay grades for other classes, the relative difficulty and responsibility of work in the several classes, the recruiting experience of the state, the availability of employees in particular occupational categories, prevailing rates of pay for similar employment in private and other public jurisdictions in the area, employee turnover, cost of living factors, the financial policies and economic considerations of the state. The minimum and maximum rates of pay assigned the several classes of positions shall be those which most nearly reflect these factors.

4.1(2) Adoption by commission. The commission, after holding a public hearing, shall adopt the pay plan, or a revision thereof, and forward same to the executive council for approval.

4.1(3) Approval by executive council. The pay plan shall become effective on the date it is approved by the executive council unless another date is specified.

4.2(19A) Pay plan review and amendment. The director, at his discretion, but not less than annually, shall review the pay plan, giving consideration to factors as specified in 4.1 (1) of these rules, and may recommend revisions to the commission. Revision in the pay plan shall be made in the same manner as the adoption and approval of the original pay plan under 4.1(19A) of these rules. Any appointing authority may initiate a written request for amendment of the pay plan to the director.

4.2(1) Revisions in pay grade assignments. At the written request of any appointing authority or when the director determines that a pay grade assignment for a class of position is not competitive or is not properly related to the overall pay plan, the director may recommend the reassignment of the class of position to a different pay grade. Revision in the pay grade assignment for the class of position shall be made in the same manner as the adoption and approval of the original pay plan under 4.1(19A).

4.2(2) Economic pay adjustment. When the director's investigations show an increase or decrease in the cost of living, he may recommend a percentage increase or decrease in pay for all pay grades. Upon approval, each step in each pay grade in the pay schedule shall be recalculated to reflect the percentage increase approved. Each employee shall then be placed on his proper step in the revised pay schedule.

4.3(19A) Content of the pay plan. The pay plan for the classified service shall include:

4.3(1) A schedule of numbered pay grades with the minimum, maximum and intermediate steps for each pay grade.

4.3(2) A list of classes of positions by occupational groups and the pay grade to which each class is assigned.

4.4(19A) Pay of employees.

4.4(1) Employees to be paid at one of the steps in the pay plan. Each employee shall be paid at one of the steps of pay set forth in the pay plan for the class of positions to which the position he occupies is allocated except as provided in these rules or when otherwise authorized by the commission. Such pay shall constitute the total compensation for the employee for services rendered to the state.

4.4(2) Total remuneration. No employee shall receive any pay under governmental jurisdiction other than that specifically authorized by the commission for the discharge of the duties of his position or additional duties which may be assigned to him or which he may undertake, or volunteer to perform as a state employee.

In any case in which part of the compensation for services in a classified position, exclusive of military training leave, is paid by another department, division, or an outside agency such as the city, county, or federal gov-

ernment, or from a different fund or account, any such payments shall be deducted from the compensation of the employee concerned to the end that the total compensation paid to any employee from all sources combined, for any period, shall not exceed the amount payable at the rate prescribed for the class of positions to which the employee is certified and appointed.

4.4(3) Subsistence or maintenance allowances received in lieu of cash shall be considered as part of total compensation. In each case where an employee and his family are provided with full or part maintenance, consisting of one or more meals per day, lodging or living quarters, and domestic or other personal services, such compensation in kind shall be treated as part payment and its value shall be deducted from the appropriate pay rate in accordance with the schedule promulgated by the director after consultation with appointing authorities and approval of the commission.

4.5(19A) Administration of the pay plan.

4.5(1) Entrance rate of pay. The entrance salary for any classified position shall be at the minimum salary for the class of position to which appointed, except:

a. Appointment based on scarcity of qualified applicants. When an appointing authority submits a written request setting forth the economic or employment conditions which make recruitment of eligibles at the minimum rate for the class of position difficult or impossible, the director may authorize appointment of qualified eligibles at a higher rate within the pay grade for the class of position in a limited geographical area or for the class as a whole not to exceed step "C" of the pay grade. The higher entrance rate shall remain in effect until the director orders such rate rescinded. All employees in the same class and under the same conditions necessitating the higher entrance rate, who are earning less than the higher entrance rate, shall be increased to the approved entrance rate. Thereafter all new employees or promoted employees subject to the same conditions shall be treated in a like manner. Requests for appointment above step "C" of the pay grade for the class of position shall be submitted to the commission.

b. Appointment based on overqualification or exceptional qualifications. An appointing authority may with the prior approval of the director, offer appointment above the entrance rate to qualified eligibles who exceed the minimum qualifications of the class or who possess outstanding and unusual experience for the class of position depending upon the eligible's qualifications and the needs of the appointing authority; and, provided further, that all other employees possessing similar qualifications in the same class in the same agency in the same geographical area are adjusted in pay to the step approved. Requests for appointment above step "C" shall be submitted to the commission.

c. *Appointment by reinstatement.* A permanent classified employee who has been reinstated to his former class of position or to a lower class of position may, at the discretion of the appointing authority, be paid at any step within the pay grade for the class of position to which appointed which does not exceed the step in the pay grade to which assigned upon separation from the classified service. Salary increases shall be in accordance with the provisions as to probationary or permanent classified employees.

d. *Military and educational leave.* Any permanent classified employee who returns from authorized military or educational leave may be paid at the salary rate for which he would have been eligible if he had not gone on such authorized leave.

e. *Reappointment from preferred employment lists.* The appointing authority may re-employ a former employee from the preferred employment list in accordance with these rules at the same step in the pay grade for the class from which he was laid off or at any step in the pay grade if he is re-employed in a class of position in a lower pay grade, provided it does not exceed the rate he would have been eligible to receive in the class from which he was laid off.

f. *Appointment below minimum step "A" of the pay grade.* The director may authorize appointment below the minimum step "A" of the pay grade for a class as follows:

(1) *Career development appointment.* When a career development appointment is made in accordance with these rules, the rate of pay shall be set one step below the minimum step "A", or the special appointment rate, whichever is applicable, for each six months experience the appointee lacks in meeting the minimum experience requirements for the class to which the career development appointment is being made. If the appointee is a permanent employee, and his rate of pay equals or exceeds the rate provided herein, he shall be permitted to accrue pay rights in the class from which he is appointed until such time as his eligibility for pay increase exceeds the rate to which he is entitled in his former class.

(2) *Co-operative training and trainee appointments.* When co-operative training and trainee appointments are made in accordance with these rules, the rate of pay shall be set one step below the minimum step "A" or the special appointment rate, whichever is applicable, for each semester of training the appointee lacks in meeting the minimum training requirements for the class to which the co-operative training or the trainee appointment is being made.

(3) *Budget limitation.* If the director is advised by the state comptroller that an agency is unable to make appointments at the minimum step "A" of the pay grade for a class because of budget limitations, he may authorize appointment at such step below the minimum as budgetary conditions will permit.

(4) *Competitive rates below minimum.* When the director determines that the competitive entrance rate for a class in a geographical area is below the minimum step "A" of the pay grade, he may authorize appointment of eligibles at such step below the minimum as is necessary to avoid payment of premium entrance rates in that area. Such rate shall be used for all appointments made in the geographical area concerned, until such time as economic conditions warrant a higher entrance rate.

4.5(2) *Merit pay increases.* A merit pay increase is a periodic increase in pay from one step to the next higher step within the pay grade for a class.

a. *A basis for merit pay increases.* Merit pay increases shall not be automatic or retroactive. All such pay increases shall be upon specific recommendation of the appointing authority and shall be based on standards of performance as indicated by official performance ratings and other pertinent data.

b. *Merit pay increase eligibility.* Probationary and permanent classified employees shall be eligible and may be given consideration by the appointing authority for a one-step merit pay increase at the beginning of the pay period following the satisfactory completion of the periods of service prescribed below for progression from step to step within the pay grade for the class to which their positions are allocated. The periods of service shall be exclusive of time spent on educational leave, leave without pay, and periods during which service was rated less than satisfactory as reflected by an official performance rating. Periods of satisfactory service required for eligibility are as follows:

(1) Progression from step "A" to "B" and step "B" to "C"—six months.

(2) Progression from step "C" to "D," step "D" to "E" and step "E" to "F"—twelve months.

(3) Progression from step "F" to "G" and step "G" to "H"—twenty-four months, except employees occupying highway engineer-in-training positions may be considered for merit pay increase progression from step "F" to "G" in twelve months prior to required registration as a professional engineer.

(4) Maintenance and trades classes which are assigned to salary schedule II in the compensation plan may be considered for merit increase progression from the entrance rate to the intermediate rate after six months of service, and from the intermediate rate to the maximum rate after eighteen months of service.

c. *Anniversary date.* Any type of pay increase given an individual, other than an adjustment incident to an upward revision of the range of the class in which he is employed, an exceptionally meritorious service raise, pay for lead-worker duty assignment or special duty assignment shall establish a new anniversary date for purposes of eligibility for merit increases.

When a probationary employee is appointed to the classified service, the merit increase date shall be established on the first day of the pay period for those employees who enter on duty on the first work day of a pay period. Otherwise, it shall be the first day of the pay period following the date of entry on duty.

4.5(3) Pay increase for exceptionally meritorious service. A pay increase of one step within the pay grade for the class may be made for exceptionally meritorious service, in addition to merit pay increases provided in 4.5(2) of these rules, upon recommendation of the appointing authority and the approval of the commission. Exceptionally meritorious service pay increases shall be governed by the following:

a. The employee must have served in the position for at least three months.

b. Written justification, setting forth in detail the nature of the exceptionally meritorious service rendered, must be submitted to the commission and approved in advance of granting the pay increase.

c. No more than one exceptionally meritorious service pay increase may be granted in any twelve-month period.

4.5(4) Pay increase upon promotion. A promotion means a change from a position in one class to a position in another class having a higher minimum step "A".

a. An employee who is promoted shall have his pay increased to the minimum step "A" of the pay grade for the higher class if his rate of pay before promotion falls below said minimum "A" step. In the case of overlapping pay grades and the employee's rate of pay is at or above the minimum "A" step of the pay grade for the class to which he is promoted, he shall receive a one-step promotional pay increase except as otherwise provided in "b" and "c" below.

b. For promotions between classes with a one- or two-pay step differential between the pay grades, the director may approve a two-step promotional increase, provided the appointing authority certifies that a change of residence beyond a normal commuting distance is required of the appointee.

c. For promotions between classes with a three- or more pay step differential between the pay grades, the director may approve a two-step promotional increase upon written request of the appointing authority.

d. An appointing authority may, for employees who fall within 4.5(1) "b", as with a new employee, request the commission approval for similar consideration.

4.5(5) Pay for lead-worker duty assignment.

a. An employee who is occupying a position which has been classified by the director as a lead-worker position, as provided in these rules, shall be eligible for a one-step pay increase in addition to his regular step in the

pay grade for the class to which the position is allocated.

b. At such time as the employee is removed from the position or the lead-worker duties are removed therefrom, the employee's pay shall be reduced one step to his regular step in the pay grade for the class.

4.5(6) Pay upon assignment to special duty. When an employee is assigned to special duty in another position, as provided in these rules his pay may be increased to the minimum step he could receive upon promotion to such position, provided that:

a. Any such temporary increase granted shall not affect the employee's eligibility for pay increases in his regular position.

b. At the expiration of the assignment to special duty, his pay shall revert to his authorized rate in his regular position.

4.5(7) Pay on demotion. An employee who is demoted shall have his rate of pay fixed by the appointing authority on any step within the pay range for the class of position to which he has been demoted, which does not exceed his last rate of pay in the pay range for the class of position from which demoted.

4.5(8) Pay adjustments incident to pay grade reassignments.

a. In the event a class is assigned to a higher pay grade, the following pay adjustments will be made to employees occupying positions of that class:

(1) If the new pay grade assigned is one or two grades above the prevailing pay grade assignment, all employees in positions of that class shall be increased at least one step if their pay is on an intermediate or maximum step of the original pay grade or to the new minimum step in cases where the one-step adjustment is not sufficient.

(2) If the new pay grade assigned is three or more grades above the prevailing pay grade assignment, all employees shall be increased at least two steps if their pay is on an intermediate or maximum step or to the new minimum step in cases where the two-step adjustment is not sufficient.

b. In the event a class is assigned to a lower pay grade, the following pay adjustments will be made to employees occupying positions of that class:

(1) The rate of pay of an employee who has served at least six months at his current rate of pay may remain the same.

(2) The rate of pay of an employee who has less than six months' service at his current pay step will be reduced at least one pay step below the step he is receiving or the maximum of the pay grade for the lower class, whichever is lower.

4.5(9) Salary adjustments for probationary and permanent classified incumbents. Notwithstanding eligibility time limitations provided elsewhere in this chapter and providing the comptroller certifies that funds are available:

a. Where the rate of pay of an incumbent is lower than the minimum of the pay range for his class, the appointing authority shall increase the rate of pay of the incumbent to the minimum step of the pay range for the class.

b. Where the rate of pay of an incumbent is higher than the maximum step pay range of a class, the pay may remain the same as long as the incumbent retains his present position, but no further increases or adjustments will be approved.

c. Where the rate of pay of an incumbent is between the minimum and maximum rates of the pay range for a class of position, but not coinciding with any intermediate step of such pay range, the appointing authority shall adjust the incumbent to the next higher step of the pay range for the class.

4.5(10) Pay upon reassignment. An employee who is reassigned from a position in one class to a different position in the same class or to a position in a different class in the same pay grade shall not be eligible for a pay increase nor shall such reassignment have any effect on his merit pay increase eligibility.

4.5(11) Pay upon transfer.

a. When an employee is transferred from a position in one agency to a position in the same class or another class in the same pay grade in another agency, his rate of pay shall be no higher than the pay he was receiving prior to transfer, and his eligibility for merit pay increases shall not be affected.

b. When an employee is transferred from a position in one agency to a position in a higher or lower pay grade in another agency, his rate of pay shall be fixed by the rules governing promotions or demotions, whichever is applicable.

4.5(12) Pay upon reallocation of position.

When a position is reallocated, the incumbents pay shall be fixed in accordance with these rules governing pay upon promotion, demotion or transfer, whichever is applicable and subject to the certification of the state comptroller of the availability of funds.

4.5(13) Pay for part-time employment.

Pay for part-time employment in a position shall be proportionate to the rate of pay for full-time employment.

4.5(14) Effective date of pay changes.

All pay changes shall be made effective on the first day of a pay period. Original appointments, re-employments, and reinstatements shall be effective on the first day the appointee reports for duty.

4.5(15) Pay for overlap in position.

In cases where it is deemed necessary by the appointing authority to fill a position on an overlap basis pending the separation of an incumbent employee, an appointment of a new employee may be made in accordance with the rules for a period not to exceed one month.

Any overlap for a longer period must be approved by the director.

4.5(16) Pay for certified instructional personnel. Employees of state institutions who are incumbents of teaching positions allocated to classes for which teaching certificates are required shall be paid in accordance with the prevailing rates of pay for the school district in which they are employed. The appointing authority shall file a copy of the pay plan for each school district, in which positions requiring teaching certificates are located, with the director not later than September 1 of each year. Such pay plan shall clearly indicate the rates of pay for classes of teachers comparable to those utilized by the institution. Rates of pay for such classes shall require the approval of the director and shall be effective on the first day of the normal contract year for the school district.

4.6(19A) Overtime. Time that an employee works in excess of the prescribed number of hours for a standard work week or an extended work week shall be credited to the employee as overtime.

4.6(1) General policy on overtime.

a. Overtime shall be held to a minimum consistent with the needs of the service.

b. All overtime work must be authorized by the appointing authority in advance of the performance of the work.

c. Normally, compensatory time off shall be granted for overtime; however, upon request of the appointing authority and certification by the state comptroller of the availability of funds, the director may approve cash payment for overtime as follows:

(1) To any employee eligible for overtime payment under the provisions of the Fair Labor Standards Act irrespective of whether the position is subject to said Act, of the Code.

(2) To any employee eligible for overtime payment under subrule 4.6(5) pertaining to overtime accumulation.

It shall be the responsibility of the appointing authority to determine whether or not an employee is eligible for overtime payment under the provisions of the Fair Labor Standards Act.

d. Compensatory time off shall be granted as soon as possible after overtime is earned. Compensatory time off must be granted within one year of the date earned, except that employees of hospitals, nursing homes, schools and institutions of higher education which are subject to the Fair Labor Standards Act must be granted such compensatory time off within the pay period that it is earned. Within the time limitations specified herein, the appointing authority shall respect the wishes of the employees relative to the time at which compensatory time off may be used, insofar as he determines the needs of the service will permit.

e. Additional pay for overtime work shall not be considered as a part of the employee's base pay.

f. All cash overtime payments shall be separately recorded on the payroll.

g. Any additional cash compensation shall cease to be payable, without right of appeal, whenever the employee's work week is reduced to forty hours.

h. The state is considered as one employer for the purposes of determining the number of hours worked.

i. Positions shall be categorized by the director for purposes of determining eligibility for overtime as follows:

(1) *Standard work week.* A standard work week shall include positions which require forty hours of work in seven consecutive days on regular daily assignments or of eighty hours of work in fourteen consecutive days for shift assignments.

(2) *Extended work week.* An extended work week shall include positions which require more than forty hours of work in seven consecutive days on regular daily assignments or more than eighty hours of work in fourteen consecutive days for shift assignments. Extended work weeks shall be approved by the director only after certification by the state comptroller of the availability of funds. Extended work weeks may be established on increments of two additional hours per week up to forty-eight hours. The rate of pay for the position shall be increased one step for each two-hour increment above forty hours per week. Upon reduction of the work week the pay of the incumbent employee shall be reduced accordingly, without the right of appeal. The extended work week shall not be applicable to positions in hospitals, nursing homes, schools and institutions of higher education which are subject to the Fair Labor Standards Act.

(3) *Nonstandard work week.* The nonstandard work week shall include all positions not assigned to the standard work week and the extended work week categories. Such positions shall be considered to be compensated on a total job basis.

4.6(2) Rate for crediting overtime work. An employee who works overtime shall be credited one hour for each hour worked in addition to the prescribed work week for the position he holds.

4.6(3) Rate for granting compensatory time off. An employee shall be granted one hour of compensatory time off for each hour of overtime earned.

4.6(4) Rate of pay for overtime work. Employees shall be compensated at the regular rate of pay for their position for each hour of overtime earned except for employees occupying positions in hospitals, nursing homes, schools and institutions of higher education which are subject to the Fair Labor Standards Act, who shall be compensated in accordance

therewith. It shall be the responsibility of the appointing authority to determine whether or not a position is subject to coverage by the Fair Labor Standards Act.

4.6(5) Overtime accumulation. Overtime may be accumulated up to an amount equal to four times the number of hours in the prescribed work week.

a. If an employee has accumulated overtime equal to four times the number of hours in his prescribed work week, he shall not be eligible to earn further overtime until his accumulated hours of overtime are reduced or cash compensation for additional overtime is approved, in accordance with 4.6(1) "c" of these rules.

b. If overtime has not been liquidated within one year of the date of accrual, the employee shall be compensated in cash for that overtime.

c. If an employee is transferred or promoted from one agency to another or separates or retires from the classified service, he shall be compensated in cash by the agency from which he is so transferred, promoted, separated or retired, for such accumulated overtime as cannot be liquidated by compensatory time off prior to the effective date of such action.

4.6(6) Overtime computation. For purposes of computing overtime, total hours worked shall exclude all absences from duty, leave without pay and time specifically allowed for meals. Time during which the employee is excused from work because of holidays, sick leave, vacation or compensatory time off shall be construed as time worked.

4.6(7) Overtime records. The appointing authority shall, in addition to other time records, include as a minimum each overtime accrual and compensation, whether time off or cash, separate from regular work and compensation. Such time records shall be open to inspection by the director.

4.7(19A) Pay differential. The commission may authorize a pay differential for a position within a class due to special duty requirements related to the position, but not to the class as a whole or for a class as a whole within an agency structure where such class is performing under duty requirements not normally required to the class in general state service. This differential shall be over and above the pay within the pay grade for the class of position and shall be paid only as long as the employee occupies the particular position or the class is used under the circumstances which have necessitated the differential. The request shall be submitted in writing and shall outline all facts as to the particular need. Such differential payment shall be subject to the approval of the state comptroller that funds are available for such differential payment.

[Filed July 14, 1969; amended June 9, 1970, September 18, 1970, November 10, 1970]

CHAPTER 5

RECRUITMENT AND EXAMINATION

5.1(19A) Scheduling of open competitive and promotional examinations. The director shall from time to time conduct such open competitive examinations as necessary for the purpose of establishing and maintaining registers of eligibles and promotional registers. The examinations shall be of such character as to determine the relative qualifications, fitness and ability of the persons tested to perform the duties of the class for which a register is to be established.

5.2(19A) Announcement of examinations.

5.2(1) Open competitive examinations. Examinations for entrance to the classified service shall be conducted on an open competitive basis. The director shall give public notice of all entrance examinations at least fifteen calendar days in advance of the closing date for receiving applications and shall make every reasonable effort to attract qualified persons to compete in the examinations.

Notice of open competitive examinations shall be published by posting throughout the state and copies sent to newspapers, radio stations, educational institutions, Iowa employment security offices, state agencies, professional and vocational societies and associations, public officials and such other organizations and individuals as the commission may deem expedient.

5.2(2) Promotional examinations. Promotional examination announcements shall be posted on bulletin boards or in other conspicuous places of the department or agency concerned and necessary steps shall be taken to bring such announcements to the attention of eligible employees within the agency.

5.2(3) Content of announcements. Examination announcements shall specify class title and salary range of the class for which the examination is announced; the nature of the work to be performed; the minimum qualifications required for the performance of the work of the class; the time, place and manner of making application; the closing date for receiving applications; and other pertinent information. For those classes for which there is to be continuous recruitment, a statement shall be included in the announcement to the effect that applications will be received until further notice.

5.3(19A) Eligibility to compete in examinations.

5.3(1) Open competitive examinations. Competitive examinations for original appointment to a class of position in the classified service shall be open to all applicants who meet the minimum training and experience requirements, and the necessary special requirements, if any, prescribed in the class specification for the class.

5.3(2) Promotional examinations. Promotional examinations shall be open to all per-

manent and probationary classified employees who meet the requirements and the necessary special qualifications, if any, prescribed for the class.

5.4(19A) Application and admission. An application for examination shall be made on a form prescribed by the commission and shall constitute an integral part of the examination. Applications must be filed with the department on or prior to the closing date specified in the announcement or postmarked before midnight on that date; except, the director, in cases where sufficient cause is presented and approved, may order the acceptance of any application or information supplementary thereto received after the close of such period and prior to the administration of the first phase of the examination. For those classes of positions in which satisfactory evidence of frequent turnover or nearly constant employment activity may be presented, the director may establish a procedure involving continuous receipt of applications and frequent examinations.

5.4(1) The application form shall require information as to education, training and experience of the applicant and such other information as the commission may deem pertinent. The director may require any applicant for any examination to submit documented proof of the possession of any license, certificate, degree or other evidence of eligibility or qualification claimed or required by state law, these rules or the specification and may refuse credit for such claimed or required qualification in the absence of such proof.

5.4(2) An applicant, currently enrolled in an educational institution, who does not meet the minimum education or training requirements may be admitted to examinations, provided he will meet the requirements within eight months. The name of an applicant, so admitted, who attains a qualifying rating shall have his name placed on the eligible list. His name may be certified subject to his completing the education or training requirements necessary for admission to the class, but he shall not be appointed until all requirements are met.

5.5(19A) Disqualification of applicants. The director may refuse to examine an applicant, or after examination, may disqualify such applicant or remove his name from the eligible list or refuse to certify any eligible on a list or may consult with the appointing authority in taking steps to remove such person already appointed if:

5.5(1) It is found that he does not meet any one of the qualification requirements established for the class of positions for which the examination is being conducted.

5.5(2) He is so disabled as to render him unfit for the performance of the duties of the class of positions.

5.5(3) He has made a false statement of material fact in his application.

5.5(4) He has used or attempted to use political pressure or bribery to secure an advantage in the examination.

5.5(5) He has directly or indirectly obtained information regarding the examination to which, as an applicant, he was not entitled.

5.5(6) He has failed to submit his application correctly or within the prescribed time limits.

5.5(7) He has taken part in the compilation, administration, or correction of the examination for which he is an applicant.

5.5(8) He has previously been dismissed from a position in the state service or private industry for cause or has resigned while charges for dismissal for cause were pending.

5.5(9) He has reached, or will within one year of the date of the examination reach, retirement age as prescribed by law.

5.5(10) He has been convicted of a felony or an indictable misdemeanor or he has a record of conduct which is unbecoming a state employee.

5.5(11) He is addicted to the use of narcotics and other self-induced stimulants which are illegally obtained and utilized.

5.5(12) He is known to use intoxicating beverages to excess.

A disqualified applicant or eligible shall promptly be notified in writing of such action at his last known address. A disqualified applicant or eligible may request review of the reason for his disqualification. Such request shall be in writing and upon receipt the director shall give full consideration to the request, and notify the applicant or eligible in writing of the action taken thereon.

5.6(19A) Postponement or cancellation of examinations. In the event a sufficient number of qualified applicants have not made application for any examination, the director may postpone the last filing date and the date of the examination and shall, in such cases, give written notice to the applicants and department heads concerned.

5.7(19A) Character of examinations. Examinations may be assembled or unassembled and may include written, oral, physical, or performance tests, or any combination of these. They may take into consideration such factors as education, experience, aptitude, knowledge, character, physical fitness, or any other qualifications or attributes which in the judgment of the director enter into the determination of the relative fitness of applicants.

5.7(1) Assembled examinations. Assembled examinations shall be conducted for those classes for which written tests are practical. Such examinations may include one or more of the following in addition to the written tests: Skill demonstration tests, physical tests, oral interviews, and evaluations of training and experience.

Where official certification, registration or licensing is accepted in lieu of basic skills testing, other factors which enter into the determination of the relative fitness of applicants may be included in the examination.

5.7(2) Unassembled examinations. For those classes of a craft nature or where peculiar and exceptional qualifications of a scientific or professional nature are required and competition through an assembled examination is impracticable, an unassembled examination may be held. Such examinations shall consist of an evaluation of a statement of training and experience and such other materials as the applicants may be required to submit as evidence of fitness for a position, and may or may not include oral interviews for evaluation of personal and technical qualifications and evaluations of other factors which enter into the determination of the relative fitness of applicants.

5.7(3) Types of examinations. Examinations shall be announced as one or a combination of the following:

a. Open competitive. Open competitive examinations shall be open to all persons meeting the minimum training and experience and other requirements announced for admission to the examination.

b. Promotional. Promotional examinations shall be open only to employees in the classified service meeting the minimum education and experience and other requirements stipulated in the specification for the class concerned.

c. Open continuous examinations. When it is necessary to meet continued requirements for filling positions and a sufficient number of applicants for a class is unavailable, applicants for any examination may be tested continuously in such manner and at such times and places as the director may provide. The closing date for any open continuous examination may be set at any time by the director, but notice of the action shall be posted at least fifteen days prior to the effective date of the action. Applicants making qualifying ratings shall be placed on eligible lists in order of their final ratings irrespective of the date on which the examination was taken.

5.7(4) Simplified examination procedure. For positions involving unskilled, semiskilled, domestic, attendant or custodial work, where the character or conditions of employment make it impracticable to supply the needs of the service through procedures prescribed above, the director may adopt or authorize the use of such other procedures as he determines to be appropriate which will assure the selection of such employees on the basis of merit and fitness. Examinations so given shall conform with and utilize such methods, forms and techniques as the director may require.

5.8(19A) Development and administration of examinations.

5.8(1) Examination development. The director shall develop examinations for the various classes of positions in the classified service. The director may also contract for test services or purchase test material, and may use qualified technical consultants in developing tests. Final test material shall be known only to the director and to authorized employees of the department. Every precaution shall be exercised by all persons participating in the development of tests to maintain the highest integrity in the examination process.

a. Special test sections. The director may provide for special test sections or options within an examination for a single class when appropriate, to provide for special assignments to positions within a class. For a group of classes with common requirements, the director may provide one basic test with any appropriate additional options which may be necessary to test special requirements of any class in the group. These test sections may be used in combination with ratings on other portions of the test to provide the basis for selective certification of specially qualified persons.

b. Oral examinations. The director shall develop the forms, procedure and instructions for conducting oral examinations.

c. Ratings of training and experience. The director shall develop a procedure for the evaluation of the training and experience qualifications for the various classes of positions when applicable. The procedure shall give primary consideration to the quality, recency, and pertinency of training and experience and secondary consideration to the quantity.

5.8(2) Examination administration. Examinations shall be conducted in as many places as are necessary for reasonable convenience of applicants within practicable limits for proper administration and control. The director shall appoint monitors necessary to conduct examinations, and provide them with instructions. The director shall arrange for use of public or other buildings suitable for the conduct of examinations.

a. Number to be admitted to examination. The director may announce, in advance of the establishment of an eligible list, the maximum number of applicants who shall have their names placed on the list, or who shall be permitted to compete in any of the separate parts of the examination. Under such procedure those considered as having passed or as being permitted to take the remainder of the examination shall be the set number of candidates rating highest in the examination or a part thereof.

b. Anonymity of applicants. The identity of persons taking written examinations shall not be disclosed to examiners except for open continuous examinations where conditions of anonymity are impractical. An identi-

fication number shall be used to identify examination papers of applicants when practicable. In such cases, if any examination paper bears the name of the applicant or identification other than an identification number, the applicant shall be disqualified. In case of disqualification, the applicant shall be promptly notified in writing.

c. Oral examination. When an oral examination constitutes all or a part of the total examination, the director shall appoint one or more oral examination boards as needed. An oral examination board shall consist of two or more members who shall be known to be interested in the improvement of public administration and in the selection of efficient government personnel, one of whom shall be technically familiar with the character of work in the position for which the applicants will be examined. Any person holding political office or any officer or committee member of any political organization, or, any person actively engaged in the work of any political organization, shall not serve as a member of an oral examination board. If practicable, all applicants qualifying for the oral examination for the same class shall be rated by the same oral examination board. A member of an oral examination board shall disclose each instance in which he knows the applicant personally.

d. Examination of the handicapped. Persons under such disability as not to make them ineligible by reason thereof, shall be examined in such manner as will fairly test their ability to perform the duties of the position, notwithstanding such disability.

e. Special examinations. Except in the case of a manifest error in the admission or examining of an applicant, no applicant shall be given a special examination unless the commission by formal recorded action finds that the applicant's failure to take or complete an examination was due to circumstances entirely beyond the control of the applicant. The commission's findings and recommendations shall be recorded in its minutes. No claim for a special examination shall be allowed unless it is filed in writing with the director within fifteen days after the date of the original examination. Any special examination shall be constructed on a pattern similar to, and as extensive as, the original examination. Any such special examination shall not invalidate any certification or appointment previously made.

f. Retaking examinations. Applicants may retake an examination for classes which are announced. In such examination program, no person may be scheduled nor tested at less than thirty calendar days following his initial examination in the class of position, and subsequently at sixty calendar days and then at ninety-calendar-day intervals thereafter. The same provisions shall apply to promotional examinations. Procedures adopted for retesting must be administered uniformly to all applicants. In all cases, the most recent passing score will be used to determine the candi-

date's standing on the eligible list. Any applicant who fails the performance part of any examination may repeat that part of the examination, if scheduled, after the lapse of seven calendar days. If the applicant fails to pass the performance portion of the examination the second time, he shall be prohibited thereafter from repeating that part of the examination in less than thirty-day intervals.

g. Removing examination material from premises. Any applicant or unauthorized employee of the state removing examination materials from the premises at which examinations are being administered or stored, in any manner whatsoever, shall be subject to prosecution under section 19A.20.

5.9(19A) Rating examinations. The director shall utilize appropriate scientific techniques and procedures in rating the results of examinations and in determining the final scores of the applicant. In determining the system for rating results of the examinations, the director shall give due regard to the number of applicants and to the number of vacancies which may reasonably be expected to occur in the life of the eligible list. All applicants for the same class of positions shall be accorded uniform and equal treatment in all phases of the examination rating process.

5.9(1) Setting minimum ratings. In all examinations the minimum ratings by which eligibility may be achieved shall be set by the director. Such minimum ratings may also apply to the rating on any parts of the tests and applicants may be required to obtain minimum ratings on separate parts in order to receive qualifying ratings or to be rated on the remaining parts of the tests.

5.9(2) Computing final ratings. The final earned rating of each applicant shall be determined by computing the earned ratings on each part of the examination in accordance with the weights established for each part of the examination. All applicants may be required to obtain at least a minimum rating in each or any part of the examination in order to receive a final qualifying rating or to be allowed to participate in the remaining parts of the examination.

5.9(3) Rating for lower class. The results of examination of applicants who fail to qualify as eligibles for the class for which the examinations were taken, may, with the approval of the director, be rated with reference to their eligibility for a lower class for which an examination is in process, if the applicants have signified their willingness to accept appointments to positions in such lower class. Eligibles for a given class may be certified to a lower position in the same class if they signify their willingness to accept an appointment to a position in the lower class.

5.9(4) Preference for veterans on entrance examinations. Veterans preference as provided by law shall be added to qualifying ratings on open competitive examinations. Proof of eligibility for preference shall be pro-

vided by the veteran in the form of a discharge paper, official order of separation from active duty, or a certified or photostatic copy, or other satisfactory evidence of honorable service. In addition, disabled veterans shall submit proof of current disability certified by the United States Veterans Administration.

5.9(5) Verifying information. The director may verify statements contained in an application and secure further information concerning the applicant's character and fitness. If, after a list is established, information is obtained which materially affects the rating of experience, training, or fitness of the applicant, the director shall make a new rating of the applicant's examination and make necessary adjustments in eligible lists. The director shall promptly notify the applicant of any change made in his standing and the reasons therefor.

5.9(6) Adjustment of errors. A manifest error in the rating of an examination, if called to the attention of the director within one month after receipt by the applicant of the notice of examination results, shall be corrected by the director provided, however, that such correction shall not invalidate any certification and appointment previously made.

5.10(19A) Order of names on eligible lists. Names of eligibles shall be placed on eligible lists in the order of their final earned ratings, starting with the highest, including any veterans preference credits to which they may be entitled. Where ties exist, names shall be listed in order of ratings earned in that part of the test that has been given the greatest weight; provided that in open continuous tests, where such procedure is impracticable, names shall be listed in order of date of examination. Ties on open competitive lists which are not broken by these procedures shall be resolved by assigning the higher rating to the candidate whose application was received first. Ties on promotion lists not broken by above procedures shall be resolved by assigning the higher rating to the eligible with the greater length of unbroken total state service.

5.11(19A) Notice of examination results. Each applicant shall be notified by mail of the results of the examinations as soon as the rating of the examination has been completed and the eligible list established.

5.12(19A) Review of ratings. Any applicant may request the director to review the rating of his examination, provided such request is filed within fifteen days of the date the notice of examination results was mailed. Review of examination ratings shall be limited to the applicant and the appointing authority to whom the eligible has been certified for appointment. Such review shall be provided only during regular business hours in the offices of the department. Any person who reviews an examination that has been taken may not participate in another examination

in the same series or with similar examination content until ninety calendar days have elapsed after such review.

[Filed May 1, 1969; amended May 13, 1970, September 17, 1970]

CHAPTER 6 ELIGIBLE LISTS

6.1(19A) Establishment of eligible lists. The director shall establish and maintain eligible lists necessary to provide an adequate supply of qualified candidates for all classified positions. Eligible lists shall be by class of position and shall be statewide in application except where these rules or the action of the director specifically makes provision for the establishment of eligible lists by geographical area, organizational unit or special entitlement. The following types of eligible lists shall be used to meet the needs of the classified service:

6.1(1) Preferred employment lists. The names of permanent classified employees separated from the classified service in good standing by layoff, or by demotion in lieu of layoff, shall be placed on the preferred employment lists established for the agency or the unit thereof enforcing the layoff and shall be given absolute preference in selection as provided in these rules for reduction in force. Such list shall have a life of one year from the date of layoff or establishment of the list, whichever is later.

6.1(2) Agency promotional lists. Shall show the names of all permanent classified employees of an agency or organizational unit thereof who have attained a qualifying rating on the promotional examination.

6.1(3) Open competitive lists. Shall show names of all candidates who attain a qualifying rating on an open competitive examination.

6.1(4) Agency promotional and open competitive lists. Shall be deemed continuous in nature, unless abolished as provided herein, but eligibility of an applicant on lists shall be not less than one nor more than three years as determined by the director and uniformly applied.

6.2 Reserved for future use.

6.3(19A) Ranking of eligibles. After each examination, the director shall prepare a list of persons with passing grades. The names of such persons shall be placed on the eligible lists in the order of their final rating, starting with the highest. If two or more eligibles have final ratings which are identical, their names shall be arranged on the eligible list in the order of their final rating on the written part of the examination. If this results in a tie, they shall be certified concurrently. Eligible lists resulting from a continuous examination program shall be merged prior to use by

ranking the names of all successful candidates in order of their final qualifying scores.

6.4(19A) Compilation of eligible lists in absence of appropriate eligible lists. If a vacancy exists in a class of position for which there is no appropriate eligible list, and an announcement has been made and opportunity given for applicants to take the examination, the director, with the approval of the commission, may prepare an appropriate register for the class from one or more existing related eligible lists. For this purpose, the director shall select the eligible lists from classes for which the minimum qualifications and examinations are similar to or higher than those required for the class in which the vacancy exists. The director may, if necessary rerate training and experience in accordance with the rules on examination on the basis of the minimum qualifications required for the class in which the vacancy exists.

6.5(19A) Consolidation and amendment of lists. When a new eligible list is established for a class of positions for which an eligible list is already in existence, the existing eligible list may be canceled or merged with the new eligible list at the discretion of the commission. If the name of any individual appears on both the old and the new eligible lists, and the eligible lists are merged, his standing on the new eligible list shall be determined by his score on the more recent examination. An eligible list may be amended by the addition of other successful candidates who are admitted to subsequent examinations and the scores of the individual names that appear on the amendment shall be merged in rank order with the scores of those on the original eligible list.

6.6(19A) Removal of names from eligible lists. In addition to the causes set forth in the chapter on examinations, the director may remove names from eligible lists permanently or temporarily for any of the following reasons:

6.6(1) On receipt of a statement from the eligible that he no longer desires consideration for a position in the class.

6.6(2) Appointment through certification from such eligible list to fill a permanent position.

6.6(3) Appointment to fill a permanent position at the same or higher salary from a different register, provided that any person whose name is removed may have his name restored to any eligible list other than the one from which appointment was made by making written application for such action to the director.

6.6(4) Failure to respond within five working days to a written inquiry or within three working days to a telegraphic inquiry of the director or an appointing authority relative to availability for appointment.

6.6(5) Declination of appointment without good cause or under conditions which the eligible previously indicated he would accept.

6.6(6) Failure to appear for scheduled employment interview or to report for duty within a reasonable time specified by the appointing authority.

6.6(7) Failure to maintain a record of his current address with the department as evidenced by the return of a properly addressed unclaimed letter or other evidence.

6.6(8) In case of agency promotional lists, separation from the classified service or from the departmental or organizational unit for which the list is established.

6.6(9) In case of exhaustion or abolition of eligible lists or expiration of eligible lists, the director shall notify the eligible by mail at his last known address of this action and the reason therefore.

6.6(10) Willful violation of any of the provisions of chapter 19A or the rules promulgated thereunder.

6.7(19A) Restoration of names to eligible lists. An eligible whose name is removed from an eligible list may make written request to the director for the restoration of his name to such eligible list for the duration of the eligible list, stating the reasons for his conduct resulting in removal and reasons for restoration. The director, after full consideration of the request, may restore the name to the eligible list or may refuse such request. The eligible shall be notified of the director's action and may make written appeal to the commission to review the director's action.

A probationary or permanent employee who has resigned while in good standing or who has been separated without prejudice, shall, upon written request, have his name restored to the eligible list from which his most recent appointment was made; but such eligibility shall not exceed original entitlement of not less than one nor more than three years as determined by the original eligible list.

6.8(19A) Statement of availability. It shall be the responsibility of eligibles to notify the department in writing of any change in address or other change affecting availability for employment. However, the director may circularize lists or use other methods to determine at any time the availability of eligibles. Whenever an eligible submits a written statement restricting the conditions under which he will be available or the locations where he will accept employment, his name shall be withheld from all certifications which do not meet the stated conditions and locations under which he will be available. An eligible may file a new written statement at any time during the duration of an eligible list modifying any prior statement as to conditions under which he will be available for employment, except that if such statement results in the withdraw-

al of his name from a certification outstanding at the time of the receipt of the statement, it may be deemed a declination of appointment.

[Filed May 1, 1969; amended September 17, 1970]

CHAPTER 7

CERTIFICATION AND SELECTION

7.1(19A) Method of filling positions. Vacancies in the classified service shall be filled by re-employment, promotion, transfer, demotion, reinstatement or original appointment as provided by these rules.

7.2(19A) Request for certification. If a vacancy occurs in any classified position in an agency, or if new positions are established and new employees are needed, a requisition shall be submitted, as far in advance of the desired appointment date as possible, by the agency to the director upon a form prescribed by the commission. This requisition shall state the number of positions to be filled in each class, identifying the location of each position and all other pertinent information.

7.3(19A) Certification methods. Upon receipt of a requisition, the director shall certify and submit in writing to the appointing authority the names of available persons.

7.3(1) Agency preferred list. The number of names certified for a class shall be equal to the number of vacancies. Selection shall be made from this list until the list is exhausted before certification may be made from an agency promotional or open competitive list.

7.3(2) Open competitive list. If one position is involved the three highest ranking names available from the state-wide eligible list established and one name for each additional vacancy will be submitted. In filling vacancies, the appointing authority shall select any one of the top three available whose names have been certified for each agency.

7.3(3) Agency promotional list. The number of names certified for one position shall be three, with one additional name for each additional vacancy, or the upper one-half of the promotional list whichever is greater. Appointments shall be made in the same manner as prescribed from open competitive list, except that appointment may be made from the upper half of the promotional list if the number of eligibles on the list exceeds six.

7.3(4) Concurrent certifications. Groups of eligibles shall be certified to clerical vacancies in order of receipt of requisitions for employees, with due regard for the rights of eligibles standing highest on the list provided, however, this section shall not require simultaneous certification of the same name on different certifications made concurrently to the same class of position.

7.3(5) Temporary appointment certification. If an employee is needed for a temporary period by an agency, not to exceed 180 calendar days in any twelve-month period, a certification shall be made of the names of those eligibles, in the order of their place on an appropriate eligible list, who have indicated willingness to accept temporary appointment in accordance with 7.3(2).

7.3(6) Incomplete certification. When the number of names available for filling a vacancy in a class of position is fewer than three, the appointing authority may decline certification for that vacancy and make a provisional appointment to fill such position for a period not to exceed 180 calendar days as provided in the rules.

7.3(7) Certification for positions filled by provisional appointees. The director shall issue, on a regular basis, a certificate of eligibles to fill positions occupied by provisional appointees whenever three names are available for certification for that class of position.

7.3(8) Selective certification—special qualifications. Where certification of eligibles with special education or training is requested in writing by the appointing authority, and such specific and technical requirements are part of the specifications, and these special experience or training options are so announced, the director will certify only the highest ranking eligibles, as provided under open competitive lists, who possess the special qualifications prescribed. Certification as to physical qualifications shall be observed as long as they are uniform as to the class of position and are contained in the specifications or are approved by the commission for special and uniform application.

b. Desirable qualifications. An appointing authority may request, in writing, the certification of those eligibles meeting the desirable training and experience requirements stipulated in the specification, if any, giving the reason for such request. If approved by the director, only the names of those eligibles on the list who meet the desirable training and experience qualifications shall be certified in the order of their standing on the list. If, in certifying the names of such eligibles, the director finds there are fewer than three such eligibles, he shall complete the certification by adding after the names of such eligibles, the names of other eligibles available for appointment in the order of their standing on the list.

7.3(9) Geographic certification. Eligibles for positions in local offices, geographic or administrative areas of the agency shall be certified in the same manner as for state offices (open-competitive), except that in filling such a position in a local office, geographic or administrative area of the agency, the appointing authority may request the certification of eligibles who are residents of the area established for such local office, geographic or administrative area. Certification shall be made

as provided in 7.3(2). If, in certifying and submitting the names of such eligibles for a vacancy in a local office, geographic or administrative area, the director finds there are fewer than three eligibles who are residents thereof, he shall certify the required number of additional eligibles from a state-wide register.

7.4(19A) Life of certificate of eligibles. The life of a certificate of eligibles shall be three weeks from the date of issue unless extended by the director for a period not to exceed one week. Any appointment made from a certificate shall not be affected by any change in the condition of the list during the life of the certificate. In the event appointment is not reported within one month of the date of issue, the certificate shall expire and appointment reported thereafter shall be voided.

7.5(19A) Waiver of certification after appointment. If an eligible receives a probationary or permanent appointment, such appointment shall constitute, for its duration, a waiver of his right to certification from any register for the same or lower class of position on which his name appears.

7.6(19A) Omission of names after three considerations. If, in the exercise of his choice, the appointing authority passes over the name of an eligible on a register in connection with three separate appointments he has made from the eligible lists for that class of position, the name of such eligible shall thereafter not be certified to him from that eligible list for future vacancies in that class if such appointing authority requests in writing that the eligible not be certified on future certificates. The eligible shall be so notified.

7.7(19A) Failure to reply. An eligible may be considered not available by the director if he fails to reply to written inquiry of the director or appointing authority as to availability within five calendar days of written inquiry or within three calendar days of telegraphed inquiry.

7.8(19A) Certification from related lists. Whenever the number of names on an eligible list is insufficient to make a complete certification, the director may certify names of eligibles willing to accept employment from lists for classes of higher standing or from lists for other comparable classes, if he determines the qualifications and appropriate examinations for those classes are comparable to the class for which the certificate is being issued.

[Filed May 1, 1969; amended November 10, 1970]

CHAPTER 8 APPOINTMENTS

8.1(19A) Appointments. All vacancies in part-time or full-time classified positions shall be filled as provided by chapter 19A and these rules. No appointment to a classified position, other than an emergency appointment, shall

be made without prior authorization of the director. All appointments shall be made at the minimum salary for the class of position, unless otherwise provided in these rules. No appointment shall be made to any classified position nor shall the position otherwise be encumbered until the position has been classified in accordance with chapter 19A and these rules and the comptroller has certified as to the availability of funds.

8.2(19A) Probationary appointment. Probationary selections shall be made for each classified position from the three highest available names on the certificate submitted by the director in accordance with the chapter on certification and selection. Appointments shall be made only to positions authorized and established on a permanent basis, subject to the successful completion of a one-year probationary period. Probationary appointment shall not confer upon the appointee any privilege or right of promotion, transfer, re-employment, reinstatement or demotion to any position in the classified service, nor does it confer any right of appeal.

8.3(19A) Temporary appointment. If an employee is needed for a temporary period, a certification shall be made by the director of the names of those eligibles, in order of their place on an appropriate register, who have indicated willingness to accept temporary employment. Certification shall be made in accordance with the chapter on certification and selection. The duration of a temporary appointment shall be limited to the period of need and in no event shall a temporary appointment continue for more than 180 consecutive calendar days in any twelve-month period, regardless of full- or part-time employment. Appointments may be made only to fill positions which are authorized and established for a period of one hundred and eighty days or less, to fill permanent positions where leave has been granted for 180 days or less for temporary positions where certified by the comptroller that funds are available. The acceptance or refusal of a temporary appointment shall not affect an eligible's standing on an eligible list or his eligibility for a probationary appointment. Successive temporary appointments to the same position shall not be made nor shall a person receive continued temporary appointments. No temporary appointment shall confer on the incumbent any privilege, right of appeal or right of position, transfer, promotion, demotion, or reinstatement, nor shall a temporary employee be entitled to vacation or sick leave under these rules. A period of temporary service shall not constitute a part of a probationary period; except, temporary service immediately prior to probationary appointment in the same class of position may be credited toward the probationary period and must be reported, in writing, to the director within five working days of the eligible's entrance on duty as a probationary employee.

8.4(19A) Provisional appointment. If there are fewer than three persons available for employment from an eligible list for a class of position or an appropriate eligible list the appointing authority may submit the name or names of persons to fill the position or positions pending examination and the establishment of an adequate eligible list. If such person(s) meet(s) the qualifications as to training and experience for the class of position, such person or persons may be provisionally appointed to fill the existing vacancy or vacancies until an adequate eligible list is established and appointments made therefrom. No provisional appointment shall be continued for more than thirty calendar days after an adequate eligible list has been established nor for more than 180 calendar days from the date of appointment. Successive provisional appointments shall not be allowed. No provisional appointment shall confer on the incumbent any privilege, right of appeal or right of position, transfer, demotion, promotion or reinstatement to any classified position, nor shall a provisional employee be entitled to vacation or sick leave under these rules.

8.5(19A) Intermittent appointment. If the work of an agency demands the service of a person or persons on an intermittent basis, the appointing authority shall select such person or persons from the highest three names available from an eligible list for the class who have signified their willingness to accept intermittent appointment in accordance with the chapter on certification and selection. Such person or persons may be used as needed by the agency or agencies for a period not to exceed 180 calendar days or 1020 hours in any twelve-month period. All periods of active employment shall be reported to the commission as to enter on duty date and termination date.

A period of intermittent service shall not constitute a part of the probationary period. The acceptance or refusal of intermittent appointment shall not affect an eligible's standing on an eligible list or his eligibility for a probationary appointment. No intermittent appointment shall confer upon the incumbent any privilege, right of appeal or right of position, transfer, demotion, promotion or any other right to any classified position, nor shall an intermittent employee be entitled to annual or sick leave under these rules.

8.6(19A) Career development appointment. When a position within a class cannot be filled because of the lack of qualified eligibles or applicants meeting the minimum qualifications for the class, the director may authorize the appointing authority to make a career development appointment to a person meeting the minimum education requirements, but who lacks the experience necessary to qualify. Career development appointments shall be limited to one year; appointees must meet the minimum experience requirements upon expiration of the appointment; and, appointees

must have passed the appropriate examination provided before appointment. Appointment does not confer on the appointee any privilege or right of promotion, transfer, re-employment, reinstatement or demotion to any position in the classified service, nor does it confer any right of appeal upon termination of the appointment. Vacation and sick leave shall be in accordance with probationary appointment.

8.7(19A) Reinstatement to previous class of position. A permanent classified employee, who has resigned while in good standing or who has been separated for other than good cause as outlined in these rules and chapter 19A, shall be eligible for reinstatement to his former class of position or to a lower class of position within a period of time equivalent to his period of continuous classified service, not to exceed two years from the date of separation—provided, he has been certified by the director as meeting the current minimum qualifications as to training, experience, knowledge, skills and education for the class of position to which he is reinstated.

8.8(19A) Emergency appointment. When an emergency exists in order to preserve the public peace, health or safety or to prevent the stoppage of public business, requiring the immediate services of one or more persons, the appointing authority may appoint a person or persons to a class of position without regard to other provisions governing appointments. In no case, however, shall the same person be appointed under this provision for more than a total of sixty calendar days with any or all state agencies during any twelve-month period. Employment for any part of a day shall be considered as a full day. No emergency appointment shall confer on the appointee any privilege, right of appeal or right of position, transfer, promotion, demotion, reinstatement or any other right to any classified position, nor shall an emergency employee be entitled to vacation or sick leave under these rules.

8.9(19A) Work-test appointment. In accordance with 5.7(4), the appointing authority, who has under his jurisdiction positions involving unskilled or semiskilled domestic, attendant or custodial work, as so designated by the commission, may appoint persons to such positions on the basis of a competitive working test performance for the length of the probationary period. Any such person appointed shall serve a probationary period in accordance with these rules and shall acquire permanent status and be subject to the same rules as other classified probationary employees.

8.10(19A) Seasonal appointments. When the services to be rendered in a position occur, terminate and reoccur periodically or annually, the appointing authority may make a seasonal appointment. Certification shall be made in accordance with the chapter on certification

and selection to fill only positions which are authorized and established as seasonal positions for a specified period each year, not to exceed eight months in any twelve-month period, on a continuing basis, year after year. Appointees shall be placed on leave without pay upon completion of each period of seasonal employment and may be returned to duty the following season in a position in the same class the following year, if recommended by a satisfactory service review. No seasonal appointment shall confer on the incumbent any privilege, right of appeal or right of position, transfer, demotion, promotion or reinstatement to any classified position nor shall a seasonal employee be entitled to vacation or sick leave under these rules.

8.11(19A) Co-operative training appointment. Upon request, the director may authorize the appointing authority to make co-operative training appointments to one or more permanent positions. Appointees must be certified to be bona fide students in an accredited educational institution, pursuing a study program directly related to the work of the position and have successfully completed one year of the study program for which he is enrolled. Two co-operative training appointments may be made to each authorized position and the appointee(s) shall work a period not to exceed a combined total of eight hours a day. No appointee shall be employed more than three semesters, or the equivalent, in any two-year period. No co-operative training appointment shall confer on the incumbent any privilege, right of appeal or right of position, transfer, promotion, demotion or reinstatement, nor shall a co-operative training employee be entitled to vacation or sick leave under these rules.

8.12(19A) Trainee appointment. Where there is a need for services which can be performed by student trainees, the director may authorize the appointing authority to make a trainee appointment of a person who does not meet the minimum education and experience requirements as follows:

8.12(1) Appointments for half-time or less. May be made to bona fide students who are currently enrolled in a course of study which will qualify them for the position to which appointed within one year and who have been certified by the educational institution as to status and course of study. Appointments shall be made only to permanent or temporary positions and not to exceed one hundred and eighty calendar days or the equivalent in part-time employment.

8.12(2) Appointments exceeding half-time. May be made to bona fide students pursuing a course of training which will qualify them for appointment to the position to which appointed. Such appointments shall be made only to authorized and established permanent or temporary positions and shall not exceed one hundred and eighty calendar days in any

twelve-month period. Appointees must be at least fourteen years old and possess working permits if required by law.

8.12(3) No trainee appointment shall confer on the incumbent any privilege, right of appeal or right of position, transfer, promotion, demotion or reinstatement, nor shall a trainee employee be entitled to vacation or sick leave under these rules.

[Filed July 14, 1969; amended November 11, 1970]

CHAPTER 9 PROBATIONARY PERIOD

9.1(19A) Nature, duration and purpose. All original appointments to permanent positions shall be made from officially promulgated eligible lists, except as otherwise provided in these rules, for a probationary period of one year. Any statutory probationary period for a position or class in excess of that herein provided shall be followed. The probationary period shall be an essential part of the examination process, and shall be utilized for the most effective adjustment of a new employee and for the elimination of any probationary employee whose performance does not meet the required standards of work.

9.2(19A) During probationary period. At any time during the probationary period, a probationary employee may be terminated by the appointing authority from the classified service without right of appeal or hearing.

9.3(19A) Demotion during probationary period. At any time during the probationary period, a probationary employee may be demoted by the appointing authority to a lower class of position, provided such demotion does not result in the separation of any other employee with longer service. The probationary period of a probationary employee demoted to a lower class of position shall include the period of service in the class from which he was demoted. Demotion during the original probationary period shall not give the right of appeal or hearing.

9.4(19A) Promotion to higher class of position during probationary period. A probationary employee shall not be eligible for promotion to a higher class of position during his probationary period.

9.5(19A) Transfer during probationary period. A probationary employee shall not be transferred during his probationary period to a position in another class or interagency in the same class of position. Nor shall a probationary employee certified to a vacancy in a local office, geographic or administrative area, in accordance with the provisions of these rules as to certification and selection, or otherwise, be transferred from the local office, geographic or administrative area until six months of the probationary period has been completed.

9.6(19A) Leave of absence during probationary period. A probationary employee may be granted leave of absence with or without pay at the appointing authority's discretion

and such probationary period shall be extended by the amount of leave granted, provided such probationary employee has been at a paid status for at least thirty days or as provided by the commission or provided in the Code of Iowa.

9.7(19A) Vacation and sick leave during probationary period. Probationary employees shall be granted vacation and sick leave in accordance with the provisions of these rules as with permanent classified employees.

9.8(19A) Probationary period for promoted permanent classified employees. When a permanent employee is promoted, under the provisions of the rules as to promotion, the appointing authority may at its discretion require such employee to serve a probationary period in the new class of position to which he has been promoted. This probationary period shall be for a maximum of six months or for such shorter period as determined by the appointing authority. The permanent classified employee so promoted shall be informed, in writing with a copy to the commission, at the time of the promotion of the determination of the appointing authority to require that a probationary period and the length of such period to be served before such promotion shall become final. If such employee does not prove to be satisfactory in the new class of position during such probationary period, he shall be reinstated to his former position or in a similar position thereto at a salary not lower than that received by him in such former position at the time of his promotion. Such action by merit employment commission, but the reasons for the failure to certify him for permanent appointment to the promotional position shall be submitted in writing to the individual and a copy placed in the employee's file at the department office.

9.9 Reserved for future use.

9.10(19A) Provisional service credit. Provisional service immediately prior to probationary appointment in the same class of position may be credited toward the probationary period at the discretion of the appointing authority. The decision not to allow provisional service credited toward the probationary period must be reported, in writing, to the director within five working days of the eligible's entrance on duty as a probationary employee.

9.11(19A) Completion of probationary period. Within ten calendar days prior to expiration of the employee's probationary period, the appointing authority shall notify the director, in writing with a copy to the employee, whether the employee is satisfactory or unsatisfactory. If unsatisfactory, the employee shall be separated at date specified or at the end of probationary period. A satisfactory report will give permanent classified status in the class of position. The appointing authority's determination shall be conclusive and final.

[Filed July 14, 1969; amended November 5, 1970]

CHAPTER 10

PROMOTIONS, REASSIGNMENTS, TRANSFERS AND DEMOTIONS

10.1(19A) Promotions.

10.1(1) Selection. As far as practicable and feasible, vacancies shall be filled by promotion of qualified, permanent, classified employees based upon individual performance, as evidenced by recorded service records, personal observation, examination results and due consideration for length of service and capacity for the new position.

10.1(2) Certification as to qualifications. A candidate for promotion must be certified by the director to possess the qualifications for the position as set forth in the current job specification for the class of position for which he is a candidate and he shall be required by the director to qualify for the new position by promotional competitive or non-competitive examination. Promotional examinations shall be of the same nature and content as those used in establishing open competitive eligible lists. Passing grade attainment shall be the same as with open competitive examinations.

10.1(3) Establishment of promotional eligible lists. Each permanent classified employee who receives a passing grade on a competitive promotional examination shall be placed on a promotional register for the class of position in the order of his examination rating. The life of a promotional eligible list shall be the same as that for an open competitive eligible list for the same class of position.

10.1(4) Promotion by competitive examination. Openings shall be announced and posted by the agency and may be limited to permanent classified employees of the agency concerned or may, with the approval of the agency, be open to permanent classified employees of all agencies. Certification and selection shall be in accordance with the rules contained in chapter 7.

10.1(5) Promotion by noncompetitive examination. The appointing authority may fill a vacancy or vacancies in a particular class of position by noncompetitive promotional examination, provided written justification is approved by the commission. A permanent classified employee proposed for noncompetitive promotion shall be examined by the director in accordance with 10.1(2), and if found to qualify for the class shall be so certified by the director.

10.2(19A) Reassignments. An appointing authority may, at any time, reassign an employee from one position to a position in the same class, except:

10.2(1) A probationary employee certified on a geographic or administrative area basis may not be reassigned outside the certification area until six months of the probationary period has been completed.

10.2(2) A probationary employee certified to fill a vacancy on the basis of specific requirements of particular experience, education, skill or physical characteristics shall not be reassigned from that position until six months of the probationary period has been completed or the reassignment proposed requires the same special qualifications which justified the original certification.

10.3(19A) Detail to special duty. When the services of a permanent classified employee, or a probationary employee who has completed six months of his probationary period, are temporarily needed in a position with the agency, other than the position to which he is allocated and assigned, he may be detailed, at the discretion of the appointing authority, to perform the duties of such position for a period not to exceed three months without change in title or status. A written statement outlining the reasons for the detail shall be submitted to and approved by the commission before such detail may be made. In unusual circumstances, an extension of a detail beyond the three months may be authorized by the commission, upon written request of the appointing authority.

10.4(19A) Transfers.

10.4(1) Intra-agency transfers. The appointing authority may transfer a permanent classified employee from a position in one class to a position in another class in the same pay grade, provided the director certifies the permanent classified employee possesses the minimum qualifications and has passed an appropriate examination for the new class.

10.4(2) Interagency transfers. A permanent classified employee may be transferred from a position in one agency to a position in the same or different class in the same pay grade in another agency, providing both appointing authorities have approved the transfer and the director certifies the employee meets the minimum qualifications for the class and has passed an appropriate examination.

10.4(3) Transfer to a higher class of position. Any transfer of a permanent classified employee from a position in a lower to a position in a higher class shall be made in accordance with the rules governing promotions.

10.4(4) Transfer to a lower class of position. Any transfer of a permanent classified employee from a position in a higher to a position in a lower class shall be made in accordance with the rules governing demotions.

10.5(19A) Voluntary demotion. If, for personal or other reasons, a permanent classified employee wishes to be demoted to a position in a lower class, the appointing authority may, upon written request of the employee, make such demotion. However, no such demotion shall be made unless the employee to this lower class is certified by the director as being eligible for appointment. Voluntary demotion

shall not be subject to appeal to the commission.

10.6(19A) Effective date of actions. All promotions, reassignments, transfers and voluntary demotions shall be made effective at the beginning of a pay period.

[Filed July 14, 1969; amended October 19, 1970.]

CHAPTER 11

SEPARATION AND DISCIPLINARY ACTION

11.1(19A) Separations.

11.1(1) Resignations. To resign in good standing, an employee must give the appointing authority at least fourteen calendar days prior notice unless the appointing authority agrees to permit a shorter period of notice. A written resignation shall be supplied by the employee to the appointing authority. An employee who fails to give proper notice, may at the request of the appointing authority, be barred from future certification to that agency or reinstatement to the register from which certification was made.

11.1(2) Termination upon expiration of appointment. Upon the expiration of an original appointment of specified duration, the appointing authority shall report such action to the director upon the forms prescribed by the commission.

11.1(3) Reduction in force—layoff. An appointing authority may lay off an employee whenever he deems it necessary because of shortage of funds or work, a material change in duties or organization or abolishment of one or more positions. Such reduction in force shall be by agency formula, as approved by the commission. Separation by reduction in force shall be accomplished in a systematic manner, with equity for the rights of employees and shall not be allowed as a subterfuge to abrogate an employee's right of appeal if the reduction in force separation is in fact a discharge. The agency formula shall conform to the following provisions:

a. Reduction in force shall be by class of position.

b. Reduction in force may be by organizational unit of an agency or agency wide, as designated by the appointing authority, provided such designation is made and approved by the commission before the effective date of the reduction.

c. The order of reduction in force shall be by type of appointment as follows: Emergency, provisional, intermittent, temporary, career development, probationary, permanent.

d. Each employee affected by a reduction in force shall be notified in writing of layoff and reasons therefor, at least ten days prior to the effective date of the layoff unless

budgetary limitations require a lesser period of notice.

e. There shall be adequate competition among all employees in the class of position or positions affected by the layoff by reasons of a reduction in force based on a retention points system which shall be made up of a combination of points for length of service and performance evaluation of all employees in the class of position or positions in the organizational unit or units affected. Length of service and performance evaluation points shall be calculated as follows:

(1) Length of service credit shall be allowed at a rate of one point for each month of service. For the purpose of computing length of service credits, the appointing authority shall include all continuous periods of employment between the date of original appointment and the date of layoff. Approved leaves of absence without pay, suspensions without pay and layoffs for periods exceeding fourteen consecutive days shall not be counted; however, the periods of service immediately preceding and that immediately following such leaves of absence and layoffs shall be counted. An employee who is returned to duty following approved military duty shall have all periods of military service counted as continuous service. Breaks in service, where the employee is off of the payroll of an agency for more than fourteen days shall be considered as a new employment. Part-time employment shall receive pro rata service credit.

(2) Performance evaluation credit shall be allowed at a rate of one point for each month of service rated as satisfactory under a performance evaluation plan approved by the commission. An additional one-half point shall be added for each month of service during which performance is rated one or more levels above satisfactory. No credit shall be allowed for service rated less than satisfactory.

No performance evaluations which are made less than three months prior to a reduction in force shall be used in determining performance evaluation credits.

In the absence of performance evaluations made under an approved plan, all employees in the class or classes affected shall be considered to be of equal efficiency and one performance evaluation point (satisfactory) shall be given for each month of continuous service.

(3) Reduction in force retention points shall be the total of the length of service credit points and the performance evaluation credit points.

f. Employees shall be placed on the layoff list beginning with the employee with the highest number of retention points. Employee layoffs shall be made from the layoff list in inverse order. Copies of the computation of the length of service credits and performance evaluation credits shall be furnished to the employees and to the commission.

g. When two or more employees have the same combined total of retention points from length of service credits and performance evaluation credits, order of termination shall be determined by giving preference for retention in the following sequence:

- (1) The employee with the greatest length of service credits.
- (2) The employee with the highest service review credits.
- (3) Alphabetically.

h. The reduction in force formula approved by the commission shall be posted by the appointing authority so all employees shall have access to same.

i. The appointing authority shall give written notice to the commission of its intention at least fourteen days prior to a reduction in force and shall send to the commission a list of persons affected by the layoff with their total retention points and shall indicate thereon which employees will be laid off.

j. Appeal to the commission must be filed in writing within seven days after notification as provided in paragraph "d" of this subrule.

k. A permanent employee in a class of position in which layoffs are to be effected may, in lieu of layoff, elect voluntary demotion to a position in the next lower class of position in the same series as the class of position in which layoffs are to be effected, or, in the absence of a lower class of position in the same series, to a class of position which the employee has formerly occupied while in the continuous employ of the agency. Such demotion or the occupying of a formerly held position shall not be permitted, however, if the result thereof would be to cause the layoff of a permanent employee with a greater combined total of retention points. To exercise the right of voluntary demotion or to occupy a formerly held position, in lieu of layoff, the employee must notify the appointing authority, in writing, of such election not later than five calendar days after receiving notice of layoff. Any permanent employee displaced under these provisions shall have the right of election as provided herein.

Any employee who elects a voluntary demotion or to occupy a position he formerly held, in lieu of layoff, shall have the right of promotion or reinstatement to the class of position he formerly occupied, provided he meets the qualifications of the position, before any other person may be promoted to, or a new employee hired for such class of position by the appointing authority enforcing the layoff. Any employee laid off because of a reduction in force, shall be offered a position in the class from which he was laid off, provided he meets the qualifications of the position, before a new employee may be hired for such position by the appointing authority enforcing the layoff, if such opening becomes available within

one year of the date of such layoff because of a reduction in force.

l. The names of employees laid off by an appointing authority shall be placed on eligible lists as follows:

- (1) The name of a permanent employee shall be placed on the preferred employment list and the reinstatement list for the class from which he is laid off as provided in subrules 6.2(1) and 6.2(2), respectively, of these rules.
- (2) The name of a probationary employee shall be placed on the reinstatement list for the class from which he is laid off, as provided in subrule 6.2(2) of these rules.

m. Any temporary interruption of employment because of adverse weather conditions, shortage of supplies, or for other unexpected or unusual reasons, which does not exceed ten days, shall not be considered a layoff if, at the termination of such conditions, employees are to be returned to employment. Such interruptions of employment shall be recorded and reported as leave without pay. Interruptions in employment of school term employees due to lack of work between terms shall be recorded and reported as leave without pay. If all such employees available for work cannot be returned to their positions when school resumes, order of recall shall be in accordance with rules governing layoff.

11.1(4) Retirement. If a permanent classified employee is retired under any provision of the Iowa Code or through his own volition, he shall be considered as separated without prejudice and does not have a right of appeal to the commission.

11.2(19A) Disciplinary action. The attainment of permanent classified status in a class of position does not create sinecure of right of position regardless of performance level, but rather a fair evaluation and treatment in relation to a reasonable standard of performance and action. Any employee is subject to discharge, suspension or demotion for any of the following causes: Inefficiency, insubordination, incompetence, failure to perform his assigned duties, inadequacy in performance of assigned duties, narcotics addiction, dishonesty, unrehabilitated alcoholism, negligence, conduct which adversely affects the employee's performance or the agency employing him, conviction of a crime involving moral turpitude, conduct unbecoming a public employee, misconduct or any other just and good cause.

11.2(1) Suspension. An appointing authority may, for disciplinary purposes, suspend without pay any permanent employee for such length of time as it considers appropriate not to exceed thirty days, for any of the reasons set forth in 11.2(19A). A written statement of the reasons for the suspension shall be given to the employee within twenty-four hours of the action and a copy shall be sent to the director. The suspended employee may appeal to the appointing authority and if not satis-

fied, may within thirty calendar days after such suspension appeal to the commission for a review of the action.

11.2(2) Reduction within pay grade. An appointing authority may, for good cause, reduce the pay of a classified employee to a lower step within the pay grade assigned to the class of position. Within twenty-four hours of the action, a written statement of the reason or reasons for the reduction and the duration of the reduction in pay shall be given to the employee and a copy sent to the director. The employee may file a written response to the appointing authority, and if not satisfied, may within thirty calendar days after such reduction in pay appeal to the commission for a review of the action.

11.2(3) Demotion. An appointing authority may demote a permanent classified employee to a vacant permanent classified position for any of the causes set forth in 11.2 (19A). A written statement setting forth the specific reasons for the action shall be given to the employee within twenty-four hours of the action and copy sent to the director. Such employee must meet the current specification requirements for the class to which demotion is made. The demoted employee may appeal to the appointing authority, and if not satisfied, may within thirty calendar days after such demotion appeal to the commission for a review of the action.

11.2(4) Discharge. An appointing authority may discharge any permanent classified employee for any of the causes set forth in 11.2 (19A). A written statement setting forth the specific cause or causes under which the appointing authority has so acted shall be given to the employee within twenty-four hours of the action and a copy sent to the director. The discharged employee may appeal to the appointing authority and if not satisfied, may within thirty calendar days after such discharge appeal to the commission for a review of the action.

[Filed July 14, 1969; amended October 19, 1970]

CHAPTER 12

APPEALS

12.1(19A) Appeals of allocation or reallocation. The appointing authority or a permanent classified employee affected by an allocation or reallocation may within fourteen calendar days of the final action of the director, on reconsideration, file an appeal to a qualified classification committee appointed by the commission. The appeal request shall be filed in writing with the director and shall contain affidavits, written evidence, statements or exhibits which are to be considered by the classification committee. The classification committee shall make such investigation as it deems necessary to determine the proper allocation or reallocation and make its findings in writing to the commission. The findings of the classification committee shall be binding on all parties

concerned and shall be presented within thirty calendar days of the receipt of the written appeal. Decisions of the classification committee shall stand until significant changes in duties and responsibilities of the position can be shown.

12.2(19A) Appeal from examination rejection. Any applicant whose application to entrance or promotional examination has been rejected by the director may appeal to the commission for a review of the reasons for his rejection. Such right of appeal shall expire unless the applicant shall file written appeal to the director within seven calendar days of notification of the rejection of his application. The commission shall hear the appeal at its next regularly scheduled meeting, or at special meeting as the commission may direct, and give its written decision within seven calendar days of the hearing date.

Applicants who have made proper appeal may be admitted to the examination pending the commission's decision.

12.3(19A) Review of examination ratings. Any applicant who has taken an open competitive or promotional examination may appeal to the commission for a review of his rating on any part of such examination to assure that uniform rating procedures have been applied equally and fairly. Such appeal right shall expire unless the applicant shall file written appeal to the director within seven calendar days of notification of the examination results. The commission shall hear the appeal at its next regularly scheduled meeting, or at special meeting as the commission may direct, and give its written decision within seven calendar days of the hearing date.

A rating in any part of an examination may be changed if compliance with the foregoing conditions has been met and it is found by the commission that a substantial error has been made. A correction in the rating shall not affect a certification or appointment which may already have been made from the eligible lists.

12.4(19A) Appeal for removal from eligible lists. An eligible whose name has been removed from an eligible list for any of the reasons specified in these rules may appeal to the commission for reconsideration of such action. Such right of appeal shall expire unless the eligible shall file written appeal to the director within seven calendar days of notification of removal. The commission shall hear the appeal at its next regularly scheduled meeting, or at special meeting as the commission may direct, and give its written decision within seven calendar days of the hearing date.

12.5(19A) Appeal for veteran's preference. Any person entitled to veteran's preference of five points or ten points, as outlined in these rules and chapter 19A, may appeal to the commission his preference entitlement, placement on the eligible lists or certification method. Such appeal rights shall expire unless the person claiming veteran's rights shall file written

appeal to the director on notification of or his learning of the alleged mistake in granting veteran's preferences. The commission shall hear the appeal at its next regularly scheduled meeting, or at special meeting as the commission shall direct, and give its written decision within seven calendar days of the hearing date.

12.6(19A) Appeal from discrimination. Any applicant or employee who has reason to believe that he has been discriminated against because of religious or political opinions or affiliations or race or national origin or any other nonmerit factor in any personnel action including denial of transfer, may appeal to the commission. Such appeal shall be filed in writing and within ninety calendar days of the alleged discrimination. The commission shall hear the appeal at its next regularly scheduled meeting, or at special meeting as the commission shall direct, and give its written decision within seven calendar days of the hearing date.

12.7(19A) Retirement. If a permanent classified employee is retired under any provisions of the Iowa Code or, through his own volition, he shall be considered as separated without prejudice and does not have right of appeal of such action to the commission.

12.8(19A) Resignation. Any permanent classified employee who resigns from his position shall not have the right of appeal to the commission.

12.9(19A) Appeals from dismissal, suspension or demotion. Any permanent classified employee who is dismissed, demoted or suspended may appeal in writing to the commission within thirty calendar days of such action by the appointing authority. Within seven calendar days of the receipt of such written appeal, the commission shall serve the employee and the appointing authority with written notice of the hearing date, which shall be the next regularly scheduled meeting or a special meeting as the commission may direct within thirty calendar days following the filing of appeal, and give its written decision within ten calendar days of the hearing date. The commission shall sustain or not sustain the appeal for suspension, and if sustained the employee shall be reinstated to his position without loss of pay or other benefits for the period of suspension. In the case of dismissal or demotion the commission may affirm, modify or reverse on its merits.

12.10(19A) Conduct of the appeal hearing by the commission.

12.10(1) Information for conduct of hearing.

a. Hearings before the commission shall not be open to the public, unless a public hearing is requested by the employee prior to the hearing date.

b. Hearings shall be informal and technical rules of evidence shall not apply.

c. The chairman of the commission, or any member of the commission, as designated by the chairman, shall preside at the hearing.

d. The appointing authority concerned shall appear in person or shall designate a representative to appear in his behalf and shall present the agency's position in the personnel action.

e. The appellant may appear before the commission in his own behalf or be represented by a third party.

f. The commission shall determine the evidence, facts or testimony upon the specific cause under which the appointing authority has acted in discharging, suspending or demoting the appellant, as contained in the letter or other appropriate document in written form given to the appellant, and shall not consider any additional material beyond the scope of the charges so contained.

g. All testimony, facts, documents or other materials offered must be relevant and bear upon the act of dismissal, suspension or demotion. Any testimony, facts, documents or other materials considered by the commission not to meet this criteria may be properly excluded. The commission shall consider the objection of either party to the introduction of the aforementioned. Competence and relevance shall be the primary test in ruling on such objections.

h. The commission will make no assumption of innocence or guilt, but will be guided solely in its decision by the facts as they appear at the hearing.

i. At the beginning of his testimony, each witness will be required to state his name, address and other pertinent information. All testimony shall be made under oath and shall be subject to questioning by the parties and the commission at the proper time.

j. Any letter, paper, or other object offered at the hearing shall be properly presented and shall be marked with a distinguishing number, such as Appointing Authority Exhibit #1 or Appellant's Exhibit #1. Opposing parties shall be entitled to examine the exhibits as offered and make objections where applicable.

k. Testimony may be presented in statement or question and answer form, and shall be recorded, transcribed or otherwise preserved as the commission may direct.

l. No questioning shall be allowed or statements made, by any person attending the hearing, except through the appointing authority, the appellant, or their designated representatives or through the presiding officer of the commission.

m. The members of the commission, or the director, shall have the power to administer oaths, subpoena witnesses and compel the production of books and papers pertinent to any investigation or hearing authorized by chapter 19A.

n. Good reason appearing therefore, hearings may be continued beyond the period originally scheduled or recessed until a future day by agreement of the commission and the parties. Request for continuance shall be made to the commission at least one calendar week prior to the scheduled hearing date.

12.10(2) Order of procedure on appeal.

a. The chairman of the commission, or any member of the commission, designated by the chairman, shall convene the commission at the time and place specified for the purpose of hearing the appeal. Written notice of the time and place of the hearing shall be furnished in accordance with chapter 19A and these rules.

b. The chairman, or commission member designated, shall state the subject of the hearing and the names of the principals.

c. The hearing shall be heard in the following manner:

(1) Presentation by the appellant, followed by responsive questioning by the appointing authority and the commission.

(2) Presentation of the appointing authority, followed by responsive questioning by the appellant and the commission.

(3) Closing statement by the appellant.

(4) Closing statement by the appointing authority.

(5) Submission of the case to the commission.

[Filed July 14, 1969; amended September 17, 1970.]

CHAPTER 13

SERVICE RECORDS (PERFORMANCE EVALUATION)

13.1(19A) The commission shall establish and make effective a system of service records designed to give a fair and impartial evaluation of the quality and quantity of the work performed by classified employees. Insofar as practicable, the system of service records in the agencies shall be uniform, but the commission may approve an agency service record form which is in accordance with the service records established by the commission.

13.2(19A) Such service records shall be prepared at least once per year for each classified employee. Service records shall be considered in determining salary advancement, in making promotions, demotions, transfers, reinstatements, dismissals, in the reduction-in-force formula and shall serve as a counseling device.

13.3(19A) Service records shall be discussed with the classified employee and each classified employee shall have a right to make his comments thereon. The signing of the service record by the classified employee does not signify his agreement with the service record, but only that he has seen the service record,

it has been discussed with him and he has been afforded the opportunity to make comments to be attached to or placed in the service record.

13.4(19A) Each classified employee shall receive a copy of his service record or records and a copy of all service records shall be sent to the merit employment department for inclusion in the classified employee's file as a permanent record.

13.5(19A) For any period in which a service record has not been made as to the performance of a classified employee, or for which a service record is not made in accordance with this chapter, service shall be considered as satisfactory.

[Filed June 9, 1970]

CHAPTER 14

VACATION AND LEAVE

14.1(19A) Attendance. The appointing authority in each agency shall establish the working days and the hours of attendance for classified employees under his direction and such other regulations in regard to attendance as it deems necessary. Such regulations shall be made known to the employees.

14.2(19A) Vacation leave. A classified employee shall be entitled to and granted vacation leave with full pay computed at:

a. No vacation leave shall be granted for less than one year;

b. One week after completion of one year's continuous employment;

c. Two weeks after completion of two years' continuous employment;

d. Three weeks after completion of five years' continuous employment;

e. Four weeks after completion of twelve years' continuous employment;

f. Time spent in military service, within the four-year time limit under the military training and service act, shall be considered continuous service, provided the classified employee left an agency of state government to enter the military service and returned to the state unit within the thirty-day period following his military discharge.

Subject to the following conditions:

14.2(1) Vacation leave must be applied for by the classified employee and may be used only when approved by the appointing authority, who shall designate such time or times when it will least interfere with the efficient operation of the agency, taking into consideration the vacation preference of the classified employee. Vacation need not be taken in period of one week or more.

14.2(2) Permanent part-time classified employees shall accrue vacation leave in an amount proportionate to that which would be accrued under full-time employment.

14.2(3) Vacation leave shall not accrue to any classified employee on leave without pay, suspension, layoff or educational leave.

14.2(4) A classified employee who is transferred from one state agency or department to another state agency or department shall be credited with the vacation leave he has accumulated.

14.2(5) Any classified employee who is separated from the state employment by lay-off, resignation, death or otherwise, shall be paid or shall have payment made to his estate, for any unused vacation leave accumulated to his credit on a calendar day basis.

14.2(6) All earned accumulated vacation leave shall be paid to a classified employee before he is granted leave without pay, except as otherwise provided in these rules.

14.2(7) Vacation leave shall be taken upon a work day basis. Officially designated holidays falling within a period of vacation leave shall not be counted against vacation leave.

14.2(8) A classified employee who is discharged for good cause, or for other reasons set forth in these rules, shall not be paid for vacation leave accrued during the twelve months prior to termination.

14.2(9) Vacation leave may not be taken in advance.

14.2(10) Vacation leave shall be cumulative to twice the annual entitlement, but an appointing authority may require a classified employee to take vacation leave whenever in his administrative judgment such action would be in the best interests of the agency, but no classified employee shall be required to reduce his accrued leave to less than one week by such action.

14.2(11) *Terminal leave.* Vacation allowances for less than one year shall accrue at the following rate:

a. No terminal leave shall be granted for less than one year employment;

b. Three and one-half days pay for each completed calendar quarter (3 months) during the second year of continuous employment and through the fifth year of continuous service;

c. Five and one-fourth days pay for each completed calendar quarter (3 months) during the sixth year of continuous employment and through the twelfth year of continuous employment;

d. Seven days for each completed calendar quarter (3 months) during the thirteenth year of continuous service and for all subsequent years of continuous service;

e. For any calendar quarter (3 months) not completed no vacation credit will be given;

f. Terminal leave shall be paid on a calendar day basis.

14.2(12) One week vacation shall be construed to mean a normal work week.

14.3(19A) Sick leave. A classified employee shall be entitled to sick leave with full pay at the rate of two and one-half calendar days for each calendar month of service not to exceed thirty calendar days in a twelve month period subject to the following conditions:

14.3(1) Sick leave shall apply to a period in which the classified employee is incapacitated from the performance of his duties by sickness or injury, for medical, surgical, dental or optical examination or treatment, or where by reason of his exposure to contagious disease, his presence at his post of duty would jeopardize the health of others.

14.3(2) Sick leave shall not be used for vacation leave.

14.3(3) Sick leave shall not be taken in advance.

14.3(4) Sick leave shall not be cumulative for more than ninety calendar days.

14.3(5) In all cases where a classified employee has been absent on sick leave, he shall immediately upon return to work submit a statement that such absence was due to illness or other reasons stated in 14.3(1). In cases where such absence exceeds three calendar days, such statement shall be verified by a physician or other authorized practitioner, unless waived by the appointing authority. For a lesser period of absence, the appointing authority may, at his discretion, require evidence of illness or other reasons defined in 14.3(1) as he deems necessary and in all cases sick leave shall not be granted until approved by the appointing authority.

14.3(6) Sick leave shall be taken on a calendar day basis. Officially designated holidays falling within a period of sick leave shall not be counted against sick leave. If a person is sick both the day preceding and the day following his normal days off he will be charged for his normal days off.

14.3(7) Sick leave shall not accrue during leave of absence without pay, suspension, layoff or educational leave.

14.3(8) Permanent part-time classified employees shall accrue sick leave in an amount proportionate to that which would be accrued under full-time employment.

14.3(9) A classified employee who is transferred from one state agency or department shall be credited with the sick leave he has accumulated.

14.3(10) All sick leave shall expire on the date of separation from the classified service, and no classified employee shall be reimbursed for sick leave outstanding at the time of such separation.

14.3(11) If an absence of illness or injury extends beyond the sick leave accrued to the credit of the classified employee, such additional time may be charged to vacation leave. If all sick and vacation leave is used, the classified employee may be granted sick leave without pay, other leave without pay or terminated.

14.4(19A) Enforced leave. The appointing authority shall grant a classified employee time off from his duties, with compensation for absence necessary or reasonable, when some member of his immediate family requires the classified employee's care or attention, or in case of death in the immediate family. Said enforced leave shall not be granted in excess of accumulated sick leave. The number of days granted will be governed by the circumstances of the case, but in no event shall they exceed five sick days in any calendar year.

14.5(19A) Sick leave without pay. Upon written application of a classified employee, sick leave without pay may be granted by the appointing authority, in writing, for the remaining period of disability after both sick leave and vacation leave have been exhausted. In the event such leave exceeds one year, an extension must be requested and approved by the appointing authority. At any time the appointing authority may require the classified employee to submit a certificate from the attending physician or practitioner. In the event of a failure or refusal to supply such certificate, or if the certificate does not clearly show sufficient disability to preclude the classified employee from the performance of his regular duties, such sick leave without pay shall be canceled and the classified employee returned to work or terminated at the appointing authority's option.

14.6(19A) Leave of absence without pay. A permanent or probationary classified employee, upon application in writing, and upon written approval of the appointing authority, may be granted leave without pay for any reason deemed satisfactory to the appointing authority, subject to the following conditions:

14.6(1) Such leave shall not be granted for more than twelve months, but upon written application, prior to the expiration of such leave, the appointing authority may grant written extensions of such leave as appear best to serve the interests of the agency. Such extension shall not be for more than an additional year.

14.6(2) Failure on the part of the classified employee to report immediately at the expiration of a leave of absence without pay or extension of such leave, except for valid reasons submitted in advance and approved by the appointing authority, shall be considered a resignation.

14.7(19A) Education leave. Educational leave, either with or without pay, may be granted at the discretion of the appointing authority for a period not to exceed one year. Provided, however, the appointing authority may grant such extensions as may appear best to serve the interests of the agency not to exceed one year. When additional leave is granted, the classified employee need not be required to first exhaust his vacation leave.

14.8(19A) Rights upon return from sick leave without pay, leave without pay or edu-

cation leave without pay. A properly executed sick leave without pay, leave of absence without pay or educational leave shall accord the classified employee the right to be returned to his position, or one of like nature, on the expiration thereof or sooner if agreeable to or by action of the appointing authority; except, that if the position has been abolished through legislation, material reorganization of the agency or by action of the executive council, the employee shall be given consideration for any other position of similar pay grade and class which, in the opinion of the appointing authority and approved by the commission, does not require qualifications substantially higher than or different than those of the position previously held. If there is no such position, the layoff provisions of these rules shall apply.

14.8(1) If it is found necessary to fill the position during the interim of leave, the new employee shall vacate the position upon the return of the classified employee on leave subject to layoff, transfer or demotion rights earned under these rules.

14.9(19A) Compensatory leave. A classified employee shall be granted compensatory leave for all work in excess of a normal working schedule in accordance with the policy, and regulations of the employing agency. Such policy and regulations shall be uniform and made known to the classified employees of the appointing authority.

14.10(19A) Holidays. Holidays shall be granted in accordance with state law and the governor or executive council's proclamations as they are observed by the individual agencies in accordance with their workload, policy and regulations.

14.11(19A) Military leave. Military leave shall be granted in accordance with Iowa state law and such rights and privileges as it provides.

14.12(19A) Maternity leave. Maternity leave shall be granted to permanent full-time classified employees, when requested, not later than the seventh month of pregnancy and such leave shall expire not later than two months after birth of the child. Sick leave shall not apply during maternity leave.

14.13(19A) Election leave. Any classified employee not subject to the federal Hatch Act, who becomes a candidate for paid, partisan elective office, shall be granted leave without pay, voluntarily or involuntarily, commencing thirty days prior to the particular primary or general election and continuing until the classified employee is eliminated. Rights upon return after elimination shall be the same as those provided under 14.8(19A).

14.14(19A) Court and jury service. When in obedience to a subpoena or direction by proper authority, a classified employee appears as a witness or a jury member for the federal

government, the state of Iowa or a political subdivision thereof, he shall be entitled to leave of absence from regular duty with regular compensation. When a classified employee is subpoenaed or appears in private litigation other than the federal government, the state of Iowa or political subdivision thereof, the time absent by reason therefor, may be taken as the appointing authority shall direct.

14.15(19A) Abandonment of position. Any classified employee who is absent from duty for three consecutive work days without proper notification and authorization thereof shall be deemed to have resigned his position.

[Filed November 5, 1970]

CHAPTER 15

GRIEVANCES AND COMPLAINTS

15.1(19A) Each appointing authority shall establish a grievance and complaint procedure, as approved by the commission. The agency grievance procedure shall contain at the least the following provisions and such others as the commission may prescribe. In the absence of an approved agency grievance procedure, the provisions in this chapter shall govern. The procedure shall be published and made known to all employees with the agency.

15.2(19A) Policy. An approved grievance and complaint procedure does not replace the appeal procedure set forth in these rules.

15.2(1) All levels of agency supervisory and staff personnel involved shall be directed by the appointing authority to consider grievances and complaints as a first order of business. The maximum time limits set forth in the various steps should not be used where there is an immediate safety hazard or if circumstances will permit a more prompt processing of the grievance or complaint.

15.2(2) Any classified employee may file a grievance or complaint without fear of jeopardizing his position or opportunities for advancement or salary increase. This shall be published and made known to the employees.

15.2(3) All grievances and complaints shall be discussed on state time, except no overtime or compensatory time shall be allowed if the proceedings extend beyond the employee's normal working hours.

15.2(4) The employee or employees involved in the proceeding will co-operate with the appointing authority so there will be a minimum of interference with the normal operations of the agency's work.

15.2(5) An extension of the time limits specified in the grievance procedure may be made when mutually agreed upon.

15.3(19A) Minimum procedure requirements.

A. Step 1. The classified employee shall initiate the grievance or complaint by orally

bringing it to the attention of his immediate supervisor for oral discussion within five days of the incidence of the alleged grievance or complaint. The immediate supervisor shall within five working days orally transmit his decision to the employee.

B. Step 2. If the classified employee is not satisfied with the oral decision of the immediate supervisor, he may within five working days of notification by his immediate supervisor present his grievance or complaint in written form to the next higher supervisor in the unit, section, division or department in which the employee is assigned. The next higher authority shall within ten working days of receipt of the written appeal affirm the appeal, modify and affirm the appeal, deny the appeal or convene a hearing and present his decision in writing to the employee.

C. Step 3. If the classified employee is not satisfied with the decision of the next higher supervisor, he may within five working days of written notification by the next higher authority file an appeal in writing to the appointing authority containing all pertinent matters which were brought forth in the first two steps. Within ten working days of the written appeal, the appointing authority shall affirm the appeal, modify and affirm the appeal, deny the appeal or convene a hearing and present his decision in writing to the employee.

D. Step 4. If the classified employee is not satisfied with the decision of the appointing authority, he may within five working days of the written notification of the appointing authority file an appeal in writing to the merit employment commission which shall contain all the pertinent matters which were brought forth in the first three steps. The merit employment commission shall set a hearing for its next regular meeting or special meeting after receipt of written notification of the appeal. The commission's decision shall be presented to the employee and the appointing authority within five working days of the hearing.

15.4(19A) The employee may obtain judicial review of the commission's decision by writ of certiorari as provided in the rules of civil procedure.

15.5(19A) If the employee fails to proceed with the grievance or complaint within any of the time limits set forth under 15.3(19A), or special procedures approved by the commission, it shall be assumed the grievance or complaint has been settled on the basis of the last decision reached.

15.6(19A) If the appointing authority, or his representative supervisors fail to comply with the time limitations, the employee may proceed immediately to the next step as if a decision had been reached with which he was not satisfied.

15.7(19A) The singular employee shall also be interpreted to mean employees where such would be applicable.

15.8(19A) Form and content of written appeal notification.

15.8(1) The appeal shall be written in a form specified or approved by the commission.

15.8(2) The appeal shall contain specific information as to time and place alleged complaint or grievance, notation of procedures followed and corrective action desired. The name of a third party, if any, selected by the employee to represent his interest shall be set forth. The third party may be an attorney, an organization, a fellow employee or other individual the employee may desire for representation.

15.8(3) All germane information brought out in the hearings may be added to and shall become a part of the appeal.

15.9(19A) The hearing.

15.9(1) All hearings shall be held in an informal manner. Witnesses may be called by either party and questioned by both parties. Documents and written statements which are material shall be considered but not limited by legal rules of evidence.

15.9(2) The presiding officer of the respective hearings shall be

A. Step 2—The next higher authority.

B. Step 3—The appointing authority or his delegated representative.

C. Step 4—The chairman of the merit employment commission.

15.10(19A) The aggrieved employee shall be notified far enough in advance of any hearing so that he can make arrangements to attend the hearing.

15.11(19A) The aggrieved classified employee and all witnesses, who are classified state employees, shall be allowed time off with pay to attend the hearings. But witnesses shall not be cumulative and shall be controlled as to numbers so as not to affect the service of the agency. Statements of witnesses may be taken in lieu of appearance or stipulation made thereto.

15.12(19A) No classified employee may be coerced by his supervisor or the appointing authority into not proceeding with a grievance or appearing as a witness at a hearing. Such action by the supervisor or the appointing authority shall be considered as a basis of appeal.

15.13(19A) The third party, if a classified employee, shall be allowed time off, but without pay.

[Filed September 17, 1970; amended April 4, 1971]

CHAPTER 16

POLITICAL ACTIVITY

16.1(19A) Classified employees, whether full-time or part-time, temporary, provisional, intermittent, probationary or permanent, shall be prohibited from:

16.1(1) Engaging in any partisan political activity during scheduled working hours, while

on duty, when using state equipment, or on state property;

16.1(2) Neglecting his or her assigned duties or responsibilities or being absent from or tardy to work because of permitted political activities;

16.1(3) Wearing badges or other representation of political preference during working hours, while on duty, when using state equipment or on state property;

16.1(4) Using his or her office, public position, public property or supplies to secure contributions or to influence an election for any political party or any person seeking political office;

16.1(5) Soliciting or receiving anything of value as a partisan political contribution or subterfuge for such contribution from any other person for any political party or any person seeking political office during scheduled working hours, while on duty, when using state equipment or on state property (Also see 740.13, Code of Iowa);

16.1(6) Promising or using influence, to secure public employment or other benefits financed from public funds as a reward for political activity;

16.1(7) Discriminating in favor of, or against, an officer, employee, or applicant on account of his or her political contribution or permitted political activity at any level of state government;

16.1(8) Being a candidate for any partisan elective office for remuneration while on active duty. This does not prohibit a classified employee from holding any office which is not paid or for which token pay is received.

16.2(19A) In addition to 16.1(19A), employees of the federal grant-aided agencies such as employment security commission, department of health, certain areas of social services and civil defense and others, shall be subject to the applicable provision of the federal Hatch Act, when required, by the granting federal agency. These provisions shall be made known to employees of such agencies by the appointing authorities concerned and compliance adhered to.

16.3(19A) In addition to 16.1(19A), officers and employees of the liquor control commission are governed by the provisions of chapter 123.14 of the Code. These provisions shall be made known to officers and employees by the liquor control commission and compliance adhered to.

[Filed October 17, 1970; amended November 5, 1970.]

CHAPTER 17

RECORDS AND REPORTS

17.1(19A) Agency attendance records. Each agency shall maintain an adequate set of classified employee records for the purpose of re-

cording attendance. These records shall include attendance on official duty; vacation and sick leave earned, used and accrued; compensatory time earned, used and accrued; overtime earned, used and accrued.

17.2(19A) Roster. The director shall establish and maintain a roster of all employees in the classified service, showing for each classified employee the class title, salary, date of employment and such other data as the commission deems pertinent.

17.3(19A) Reports of personnel transactions in the classified service. The commission shall prescribe the necessary official forms for the report of all personnel transactions and procedures. Classified employees shall receive a copy of all personnel status changes by which they are affected.

17.4(19A) Records of the merit employment department. The records of the merit employment department, except for examination materials, service records, personal histories, and such other records as may be specified in the rules or by official action of the commission as confidential, may be inspected at the department's offices during working hours. Any classified employee shall have the right to examine his personal file during regular working hours of the department.

[Filed June 9, 1970]

CHAPTER 18

CONDUCT OF CLASSIFIED EMPLOYEES

18.1(19A) Every classified employee shall fulfill to the best of his ability the duties of the office or position conferred upon him and shall prove himself in his behavior, inside and outside, the worth of the esteem which his office or position requires. In his official activities, the classified employee shall pursue the common good, and, not only be impartial, but so act as neither to endanger his impartiality nor to give occasion for distrust of his impartiality.

18.2(19A) A classified employee shall not engage in any employment, activity or enterprise which has been determined to be inconsistent, incompatible, or in conflict with his duties as a classified employee or with the

duties or responsibilities of the appointing authority by which he is employed.

18.3(19A) Each appointing authority shall determine and prescribe those activities which, for classified employees under its jurisdiction will be considered inconsistent, incompatible or in conflict with their duties as classified employees. All classified employees under the jurisdiction of the appointing authority shall be notified of this determination. In making this determination, the appointing authority shall give consideration to employment, activity, or enterprise which;

a. Involves private gain or advantage of state time, facilities, equipment and supplies; or, the badge, uniform, prestige or influence of one's state office of employment,

b. Involves receipt or acceptance by classified employees of any money or other consideration from anyone, other than the state, for the performance of an act which the classified employee would be required or expected to render in the regular course or hours of his state employment or as a part of his duties as a state classified employee, or

c. Involves the performance of an act in other than his capacity as a state classified employee which act may later be subject directly or indirectly to the control, inspection, review, audit or endorsement by such classified employee or the agency by which he is employed.

18.4(19A) Each classified employee shall during his hours of duty and subject to such other laws, rules and regulations as pertained thereto, devote his full time, attention and efforts to his office or employment. The tenure of office of every classified employee shall depend upon good behavior and the satisfactory performance of his duties as recorded in his service record and other standards of performance. This provision, however, shall not be interpreted to prevent the separation of a classified employee for causes set forth in these rules or chapter 19A, or the separation of a classified employee because of lack of funds, curtailment of work or organization, when made in accordance with these rules and approved when required by the executive council of the state of Iowa.

[Filed September 17, 1970]

MINE INSPECTORS

ELECTRICITY

1. All electrical equipment shall be provided with switches of safe design, construction and installation.

2. A suitable cut-out switch shall be installed at all branch circuits to adjacent lines.

3. Cut-off switches shall be marked so that they may be found readily in case of emergency.

4. Trailing cables shall be properly protected against mechanical injury at all places

where cars and other forms of transportation are required to cross.

5. Electrical equipment shall be inspected daily, and maintained in safe condition.

BLASTING

6. All shots shall be fired by certified persons.

7. All explosives and detonators shall be kept separate until ready for use.

8. Fuses shall be at least four feet long, or over, in all shots fired.

9. Tamping sticks shall be made of wood, with no exposed metal parts.

10. Warning signals shall be given, and all workmen required to retreat to a safe place before shots are fired.

11. Each misfire presents an individual problem and shall be handled by the shot examiner and the mine foreman.

12. Any explosive used while men are in the mine shall be known as "permissible explosive" and shall be on the approved list of permissible explosives of the United States bureau of mines and shall have been approved by the mine inspectors in the state.

13. No person shall perform the duties of shotfirer in any coal mine of this state without having in his possession and on his person an efficient gas mask or self-rescuer.

14. Any person or persons, firm or corporation contemplating the use of permissible powder to blast coal while workmen are in the mine, either by shaft, slope, or drift methods to mine or produce for sale, barter or trade, must first obtain a permit from the state mine inspector of the district in which the intended mine is located; which permit shall be issued as hereinafter provided, permitting and authorizing the use of permissible explosives or any other device to break down the coal, while the workmen are in the mine. The permit shall not be valid until a copy is filed in the general office of the state mine inspectors.

15. In all mines in the state, where mechanical units are in use, during the last minute of each hour, a period of silence shall be observed, in order that the operator of the said mechanical units may make a thorough test of roof conditions in the various places in which these units are used.

16. Firing of shots while others, than those firing the shots, are in the mine, shall in no case be permitted in any coal mine except in

mines where the coal is mechanically undercut.

17. In all mines where coal is blasted while others than the shotfirer are in the mine, the operator shall furnish sand, soil, or clay to be used for tamping, which shall be delivered to the employee and placed at a convenient distance from the working place, ready for use. So as not to obstruct any employee in his work, no person shall be permitted to use any substance or material other than sand, soil or clay, for tamping.

AIR

18. The operator shall provide and maintain an amount of ventilation of not less than one hundred fifty cubic feet of air per minute for each person employed in the mine, and not less than five hundred cubic feet of air per minute for each animal used therein.

19. All abandoned rooms or other workings shall be closed with a permanent and substantial stopping, and these stoppings shall be examined daily by the preshift inspector for methane, carbon dioxide (black damp), and carbon monoxide (white damp), and a report kept at the office of the mine.

SPRINKLING OR ROCK DUSTING

20. Where shots are fired while others than the shotfirers are in the mine, a suitable sprinkler or rock dusting system shall be installed, which shall have been approved by the state mine inspector. No shots shall be fired until the room or entry shall have been sprinkled or rock dusted for a distance of fifty feet back from the face of said room or entry or breakthrough.

Any violation of these rules and regulations shall be just cause to cancel any permit issued to use permissible explosives while others than the shotfirer or shotfirers are in the mine.

[Filed September 22, 1953]

NURSING BOARD

CHAPTER 1

ACCREDITATION OF NURSING EDUCATION PROGRAMS

1.1(152) Definition of terms.

1.1(1) *Approval-accreditation* — used interchangeably. Terms refer to those programs and clinical facilities which have met requirements of the Iowa board of nursing. Also includes approval granted by voluntary, regional and other state agencies.

1.1(2) *Board*. Iowa board of nursing.

1.1(3) *Baccalaureate program*. A program in nursing leading to a baccalaureate degree which is conducted by an educational unit in nursing (department, division, school, or college) and is an integral part of a college or university and organized and controlled in the same way as similar units in the institution. The graduate is eligible to write the registered nurse licensing examination.

1.1(4) *Diploma program*. A program in nursing leading to a diploma which is conducted by a single purpose school under the control of a hospital or other authority. The graduate is eligible to write the registered nurse licensing examination.

1.1(5) *Associate degree program*. A program in nursing leading to an associate degree which is conducted by an educational unit in nursing (department or division) and is an integral part of a school system or a college and organized and controlled in the same way as similar units in the institution. The graduate is eligible to write the registered nurse licensing examination.

1.1(6) *Practical nurse program*. A program in nursing leading to a diploma or certificate in practical nursing, which is part of a larger controlling institution, either a department of a hospital or a school system. The graduate is eligible to write the practical nurse licensing examination.

1.1(7) Controlling agency. The single agency or institution that administers the school in its entirety.

1.1(8) Co-operating agencies. Those outside the framework of the controlling agency which offer facilities that contribute to the educational program. This includes institutions used as the clinical laboratory for students in nursing.

1.1(9) Co-ordinator. The individual immediately responsible for a nursing program in the vocational-technical system.

1.1(10) Counseling and guidance. Personnel services available to the student to assist in his adjustment.

1.1(11) Course. A subject area within the curriculum.

1.1(12) Curriculum. The course of studies organized in a systematic manner.

1.1(13) Dean-chairman. The individual immediately responsible for a nursing program controlled by a college or university.

1.1(14) Director. The individual immediately responsible for a nursing program. This title is usually used in hospital controlled schools.

1.1(15) Educational climate. An environment in which effective learning can take place and in which attitudes that recognize the student as a learner are fostered.

1.1(16) Faculty. Individuals employed to administer and to teach in the educational program. In this document, *nurse faculty* refers to the faculty members who are registered nurses or licensed practical nurses. *Nursing faculty* refers to all individuals employed to carry out the educational program.

1.1(17) Learning experience. Interaction between the student and his environment.

1.1(18) Legal finishing date. Legal finishing date is interpreted by the board to mean the date on which the student has completed all theory and clinical practice required for graduation. In accordance with this interpretation:

a. The diploma and the student final record shall bear this legal finishing date.

b. The effective date of the work permit will be the legal finishing date.

1.1(19) Observational experience. A planned and supervised experience of two weeks or less.

1.1(20) Objectives. Statements developed by the faculty which identify the behavioral changes which are expected to occur in the student during his educational experience.

1.1(21) Organization. The administrative framework within which the program exists.

1.1(22) Philosophy. A statement which identifies the beliefs accepted by the faculty about education and nursing.

1.1(23) Principle. Accepted or professed rule or guide for action.

1.1(24) Program. Used interchangeably with school.

1.1(25) Purpose. A statement which identifies the reason for the existence of the school of nursing.

1.1(26) Recommendations. Desirable standards for development of quality schools and programs are those strongly urged by the board although they are not mandatory. The words "should," "it is desirable" and "it is suggested" designate the statement of recommendations.

1.1(27) Requirements. Mandatory standards with which schools must comply in order to be approved. The words "shall" and "must" designate the statements of requirements.

1.1(28) School. A division or department of nursing offering a basic course of study preparing individuals for licensure as a registered nurse or a licensed practical nurse.

1.2(152) Purposes of accreditation.

1.2(1) To insure the safe practice of nursing by setting minimum requirements for schools preparing the practitioner.

1.2(2) To assure the graduates of these schools of their eligibility for admission to the licensing examination.

1.2(3) To encourage within each school self-evaluation and study of its program for growth and improvement.

1.2(4) To provide on request, a list of schools of nursing accredited by the board for the use of prospective students and counselors in the selection of a school of nursing.

1.3(152) Types of accreditation.

1.3(1) Interim. Granted to a newly established school which is demonstrating that it can meet requirements established by the board. This accreditation will be continued until the first class of students is graduated. However, there must be evidence through reports and survey visits that minimum requirements are being met.

1.3(2) Provisional. Accorded for one year to any school previously having interim or full accreditation if minimum standards as established by the board are not being met. Before a school is placed on provisional status, representatives from the school will be asked to meet with the board of nursing. At periodic intervals, progress reports and survey visits will be required. If standards are not met within the defined period, the board may either extend provisional accreditation or remove the school from accreditation status.

1.3(3) Full. Granted to a school that has met the requirements set by the board and has demonstrated its ability to provide an educational program which meets the standards of the board. Full accreditation is granted for three years unless there is evidence that the school is not progressing satisfactorily.

1.4(152) Accreditation.

1.4(1) New and reopened schools. Any agency wishing to establish or reopen a school

of nursing shall inform the board by writing to the executive director during the initial planning. Early consultation and planning with the board is essential for the development of all types of sound programs in nursing.

a. Advisory committee. An advisory committee to the controlling agency may be utilized. If an advisory committee is formed:

(1) Membership shall be representative of the community and nursing.

(2) Functions shall be purely advisory.

(3) Relationships to the controlling agency and faculty shall be clearly defined in writing. Minutes of meetings shall be on file.

b. Proposal. Written proposal (eight copies) shall be submitted to the executive director one month prior to a regular meeting for board action. Proposal must include:

(1) Request for permission to open a school, signed by appropriate officials of the controlling agency.

(2) Classification of proposed school.

(3) Evidence of community interest.

(4) Financial support.

(5) Accreditation status of the controlling agency.

(6) Evidence of availability of clinical resources.

(7) Evidence of availability of physical facilities.

(8) Provision for qualified faculty.

(9) Educational philosophy of controlling agency.

(10) Availability of qualified applicants. This should be realistically projected for a five-year period.

c. Survey visits.

(1) A survey of the controlling agency and clinical resources to be used for student experience will be made by a representative of the board.

(2) Written reports of survey will be submitted to the board for action simultaneously with proposal. This will necessitate early notification of intention to open a school so that survey visits can be arranged.

(3) Representatives from the controlling agency will meet with the board at the time the proposal and reports of survey are discussed. This meeting will serve as a means of clarification and communication.

d. Report of board action.

(1) Written report of board action accompanied by the board survey reports will be sent to the administrative official of the controlling agency.

(2) The controlling agency will receive a copy of all reports.

(3) The co-operating agencies will receive only the copy of the report of their agency.

e. Faculty requirements—all programs.

(1) Educational requirements are outlined in 2.4(2).

(2) The head of the nursing program shall be employed for a sufficient period of time prior to the admission of students to organize and develop the program.

(3) The instructors of the nursing program shall be employed for a sufficient period of time prior to the beginning of their teaching assignment to become oriented to the school and facilities and prepare for teaching assignment.

f. Progress reports.

(1) Monthly progress reports (eight copies) must be submitted to the executive director for review by the board of nursing.

(2) These reports will start one month after the head of the nursing program is employed and continue until otherwise notified by the board. These reports are to reflect the accomplishments in the development of the program.

g. Publicity. Publicity released relative to opening a new program should be carefully stated during the interim before approval is granted. Words such as "planning", "tentative opening date", etc., should be used.

1.4(2) Established schools.

a. Survey visits. All schools regardless of accreditation status will be visited by a qualified representative of the board at regular intervals as determined by the board. The purpose of the visit is to examine educational objectives, review courses, programs, administrative practices, services and facilities and to prepare a written report for review and action by the board. All visits will be conducted under impartial and objective conditions.

(1) The tentative written report of survey visit to the educational program is submitted to the dean-chairman, director, co-ordinator for review prior to typing in final form for board action.

(2) The final survey report accompanied by a written report of board action is sent to the administrative official of the controlling agency. A copy is sent simultaneously to the dean-chairman, director, co-ordinator of the program.

b. Survey of clinical facilities. All institutions used as a clinical laboratory for students will be visited by a qualified representative of the board as part of the school survey. The purpose of the visit is to review administrative practices, patient care practices, facilities and programs for patient care and personnel and to prepare a written report for review and action by the board.

(1) The tentative written report of survey visit to each clinical facility is submitted to the director of nursing service for review prior to typing in final form for board action.

(2) The final survey report accompanied by a written report of board action is sent to the chief administrative officer of the institution. A copy is sent simultaneously to the director of nursing service.

1.4(3) Withdrawal of accreditation.

a. Withdrawal of accreditation will be made only after the school has been on provisional status.

b. Accreditation will not be withdrawn until a survey has been made.

c. Representatives of the school will meet with the board to discuss problems and status of the school.

d. Final action will be communicated to the controlling agency in writing.

1.4(4) *Change of ownership or control.*

a. The board shall be notified in writing of any changes in ownership or control of a school.

b. Information shall include the official name of the school, organizational chart of the controlling agency and names of administrative officials.

CHAPTER 2

CRITERIA FOR ACCREDITATION

2.1(152) Accreditation of controlling institution.

2.1(1) *Baccalaureate programs.* North Central Association of Colleges and Secondary Schools.

2.1(2) *Diploma programs.*

a. Community health facilities services, state department of health.

b. Joint Commission on Accreditation of Hospitals.

c. If appropriate, bureau of professional education, American Osteopathic Association.

2.1(3) *Associate degree programs.*

a. Department of public instruction, or

b. North Central Association of Colleges and Secondary Schools.

2.1(4) *Practical nursing programs.*

a. Department of public instruction, or

b. Joint Commission on Accreditation of Hospitals.

c. If appropriate, bureau of professional education, American Osteopathic Association.

2.2(152) Organization and administration of the program.

2.2(1) *Authorization.* Authorization for conducting a school of nursing is granted:

a. By the charter or articles of incorporation of the controlling institution, or by resolution of its board of control, or

b. By the school's own charter or articles of incorporation.

2.2(2) *Administrative responsibility.* The authority and administrative responsibility of the school are vested in the dean-chairman, director or co-ordinator who is responsible to the controlling board either directly or through proper administrative channels.

2.2(3) *Organization chart.* The organization chart shall indicate responsibilities and lines of communication. It will show:

a. Relationship of school to the controlling body.

b. Relationship of school to the co-operating agencies, advisory committee and nursing service.

c. Such relationships may be direct, advisory, contractual or co-operative in nature.

d. A legend shall describe various lines used on the chart.

2.2(4) *Finances.*

a. There shall be adequate funds allocated by the controlling agency to carry out the purposes of the program.

b. The faculty through the head of the nursing program (dean-chairman, director, co-ordinator) will assist in the preparation and supervision of the budget within the administrative framework for the controlling institution.

2.2(5) *Ethical practice.*

a. The controlling agency of each school of nursing will establish a well-defined set of standards regarding the school's ethical practices, including recruitment and advertising.

b. These standards shall appear in writing and be available to students.

2.2(6) *Contractual agreements.*

a. If clinical resources are located outside the framework of the controlling agency, written contractual agreements shall be initiated by the school.

b. The agreement shall be developed jointly with the co-operating agency and reviewed periodically according to policies of the controlling institution.

c. The agreement shall insure full control of student education by the faculty. Faculty shall have freedom to teach and guide students. Selection of learning experiences shall be the responsibility of the faculty. Planning of clinical experience shall be done in cooperation with the director of nursing service and appropriate head nurses.

d. There shall be joint planning when more than one program uses the same facility for student experience. Representation shall be from nursing service and each nursing program. Meetings shall be scheduled for planning and subsequent evaluation. Minutes shall be written and disseminated to representatives.

2.2(7) *Philosophy and objectives.*

a. The philosophy and objectives of the nursing program shall be in writing and in accordance with currently accepted educational, social and nursing standards.

b. The philosophy shall be consistent with the philosophy of the controlling institution.

c. The philosophy and objectives developed and adopted by the faculty shall serve as a guide in the development, implementation and evaluation of the program.

d. The philosophy and objectives shall be reviewed periodically and revised as necessary by the faculty.

e. Students shall receive a copy of the philosophy and objectives of the program soon after admission.

2.3(152) Curriculum.

2.3(1) *General requirements — all programs.* The curriculum shall:

a. Reflect the philosophy and objectives of the program.

b. Follow an organized pattern in which the sequence of learning is from the simple to the complex and from the known to the unknown with each learning experience built upon previous ones.

c. Be organized to provide for regular terms.

(1) Courses shall be designed in keeping with those terms.

(2) There shall be a general plan of of the total curriculum.

(3) There shall be a reasonable distribution of courses throughout the program.

d. Identify the terminal behavioral outcomes expected of students.

e. Be developed by the faculty and include plans whereby growth of students is promoted by:

(1) Understanding roles and responsibilities of the practitioners of nursing.

(2) Applying principles of sciences which are basic to nursing practice and to the understanding of plans for medical care.

(3) Recognizing physical and emotional needs of patients and making appropriate application of these learnings.

(4) Understanding effective human relations and demonstrating ability to use these principles in nursing situations.

(5) Understanding manifestations of diseases and abnormal conditions and initiating and applying the principles underlying the nursing care.

(6) Preparing the particular practitioner for his accepted role.

(7) Learning experiences which will develop skills and abilities in observation, communications, problem solving and working relationships and an understanding of related legal and professional responsibilities.

f. Provide learning experiences for both men and women in which there is no gross differentiation.

2.3(2) *General requirements—baccalaureate programs only.*

a. The curriculum shall be consistent with the quality of other degree programs in the college or university.

b. The program shall be planned within the college calendar and meet the requirements for a degree.

c. The program shall include courses in general and nursing education.

d. Required general education courses shall contribute in breadth and depth to student development.

e. Credit hours for lecture and clinical experience shall be consistent with the college pattern.

2.3(3) *Instructional requirements—baccalaureate, diploma and associate degree programs.*

a. *Biological and physical sciences.* Courses in biological and physical sciences may be planned separately or combined. The ability to use scientific principles in individualized patient care shall be the goal set for student achievement.

b. *Behavioral sciences.* Experience shall be provided for students to improve abilities in observation, communication, interviewing, problem solving and interpersonal relationships.

c. *Nursing content.* Content including theory and guided clinical practice must be provided in medical nursing, surgical nursing, obstetric nursing, nursing of children, psychiatric nursing and, for baccalaureate programs, community nursing.

d. *Supporting courses.* Supporting courses such as nutrition, diet modification, growth and development, etc., may be separate or integrated courses.

e. *Clinical experience.* Students shall have experience in the care of men, women and children. Experience should include preventive aspects, care during acute illness, chronic illness and rehabilitation.

2.3(4) *Instructional requirements—practical nursing programs.*

a. *Natural sciences.*

(1) Selected facts and principles of the natural sciences and related terminology.

(2) General gross aspects of body structure and function.

(3) Elementary microbiology.

(4) Nutrition.

b. *Behavioral sciences.*

(1) Elementary psycho-social facts and principles.

(2) Gross signs of emotional and mental health and development in all age groups.

(3) Elementary principles of human relations.

c. *Nursing content.* Content including theory and guided clinical practice must be provided in the following areas:

(1) Nursing care of adults.

(2) Nursing care of children.

(3) Nursing care of mothers and infants.

d. *Clinical experience.* Students shall have experience in the care of men, women and children. This experience shall be within the accepted role of the practical nurse.

2.3(5) Students in all programs shall receive copies of course outlines at the appropriate time.

2.4(152) Faculty—all programs.

2.4(1) Some factors to be considered in determining the number of faculty needed are:

- a. Number of students enrolled.
- b. Frequency of admissions.
- c. Level of students taught.
- d. Preparation and experience of the faculty member.
- e. Formal class or clinical laboratory.
- f. Number and location of the clinical resources.
- g. Total responsibilities of the faculty.

2.4(2) Faculty requirements — all programs.

a. General requirements for nurse faculty.

- (1) Current nurse licensure in Iowa.
- (2) Competent practitioner with knowledge and skills of current practice.

b. Educational requirements for faculty.

(1) Senior colleges and universities shall establish educational qualifications for the faculty of the program in nursing comparable to all other faculty. The baccalaureate degree shall be the minimum qualification.

(2) Hospitals conducting programs in nursing shall establish educational qualifications for the nursing faculty. It is recommended that the baccalaureate degree be the minimum qualification.

(3) Community, junior colleges and area schools shall establish educational qualifications for the faculty of a program in nursing as required for other comparable programs leading to a like diploma and degree. It is recommended that the baccalaureate degree be the minimum qualification.

(4) *Practical nurse programs only*—in selected instances a licensed practical nurse who is a graduate of an approved program in practical nursing may be utilized as a faculty member in a practical nurse program.

2.4(3) Functions of faculty. The principal functions of the faculty are to:

- a. Develop the philosophy and objective of the program.
- b. Participate in construction, implementation, evaluation and revision of the curriculum.
- c. Develop policies for the selection of nursing students within the framework of the policies of the controlling agency.
- d. Participate in counseling and guidance of the nursing students.
- e. Organize and develop nursing courses and their sequence in the program, select and organize learning experiences and guide students in attaining the objectives.
- f. Establish policies consistent with those of the institution as a whole, for progression and completion of the program in nursing.
- g. Evaluate student achievement on the

basis of determined policies, assign earned grades for the courses in nursing and recommend successful candidates for degree, diploma and other forms of recognition.

h. Participate in appropriate activities of the controlling agency.

2.4(4) Organization of the nursing faculty.

a. There shall be a nursing faculty organization.

(1) All members of the faculty shall participate in the activities of this organization.

(2) Meetings shall be held on a regular basis.

(3) Minutes, which include faculty action, shall be recorded and available for reference.

(4) Committees, as needed, shall be established.

(5) Minutes of meetings shall be recorded and kept on file.

(6) Standard format shall be used to include resume of discussion and action taken.

b. The conditions under which the faculty work will contribute stability as well as continuous professional growth.

(1) Qualifications and responsibilities are defined for each faculty position.

(2) There is an inservice education program designed to further the competence of individuals as well as that of the faculty as a whole.

(3) The teaching assignments and other responsibilities allow time for class and laboratory preparation, program revision, improvement of teaching methods, guidance of students, participation in the faculty organization and committees, and attendance at professional meetings and participation at workshops, institutes and special courses.

(4) There are written personnel policies that provide for orientation, promotion, leave of absence, sick leave, vacation, holidays and salary increments. The salary should be commensurate with preparation, responsibility and performance.

c. Provision for clerical staff.

(1) There shall be a sufficient number of personnel for secretarial and clerical work.

(2) There should be provision for continuity in the clerical service.

2.5(152) Students—all programs.**2.5(1) Selection of students.**

a. Students shall be selected without discrimination on the basis of the philosophy and objectives of the program and the ability of the student to carry the program to completion.

b. Admission policies shall be developed in writing by the faculty.

c. There shall be adherence to these written policies.

2.5(2) Admission of students.

a. There shall be dates set for the beginning of each term.

b. In order to provide some flexibility, each school shall determine the date for close of registration. Close of registration is defined as the time after which a student will not be allowed to begin the program.

c. Any student leaving the school after close of registration shall be reported to the board as a withdrawal when submitting statistics on enrollment.

d. All students admitted during the registration period shall be considered as having been admitted on the same date.

e. There shall be a well-defined refund policy governing all fees and tuition paid by students.

2.5(3) Transfer and readmission.

a. The faculty shall establish and adhere to written policies for transfer and readmission of students.

b. Students admitted by transfer from another approved school of nursing or readmitted for completion of the program shall meet standards required of those currently enrolled.

c. The admission date of a student shall be determined by the term in which the required courses that he needs will be given.

d. When a school accepts a transfer student (student with advanced standing), that school assumes the responsibility for recommending the individual for the state board test pool licensing examinations.

e. The transcript from the original school becomes part of the final record (official transcript) of the school graduating the applicant. The complete transcript shall be filed with the board of nursing when application for the state board test pool examination is made.

f. The school shall determine the time necessary for the student to meet the above criteria.

2.5(4) Advanced standing.

a. Individuals with previous experience or course of study related to nursing may be admitted to a registered nurse program or a practical nursing program with advanced standing after satisfactory evaluation has been made.

b. Whether or not a school wishes to participate in such programs shall be the prerogative of the individual school.

c. If a school elects to participate, the board shall be notified in writing. The board of nursing "Guide to the Development of a Program for Advanced Placement in a Nursing Program" shall be followed.

d. Approval of the board is required before program is initiated.

2.5(5) Progression and graduation.

a. The faculty shall establish and adhere to written policies regarding progression and graduation of the student.

b. These written policies shall be shared with the student.

c. These policies must include:

- (1) Grading system.
- (2) Suspension or dismissal policy.
- (3) Requirements for graduation.

d. The board does not require or recommend that students be retained in a program to "make up days". A student should be retained only if he has not fulfilled the objectives of the program.

e. Prerequisites must be determined for each course.

f. Signed diplomas shall be granted only to students who complete the prescribed program.

g. The graduate shall have the privilege of writing the first scheduled state board test pool examination following completion of the program.

2.5(6) Health and welfare.

a. There must be written policies that safeguard the health and well being of students. These will include:

- (1) Vacation.
- (2) Health policies.
- (3) Leave of absence.
- (4) Holidays.
- (5) Employment.
- (6) Class attendance required.
- (7) Provision of counseling and guidance.

b. The board recommends that each student be covered by liability and malpractice insurance.

c. Copies of these policies shall be distributed to the students.

2.6(152) Records and school bulletin.**2.6(1) School records.**

a. A nursing program shall maintain a meaningful and useful system of records. These should include:

- (1) Current course outlines.
- (2) Current faculty and committee minutes.
- (3) Faculty personnel records.
- (4) Pertinent correspondence.
- (5) Pertinent reports.
- (6) School bulletins.

b. All printed materials shall have a heading and a date. Dates shall be added as materials are reviewed and revised.

2.6(2) Student records.

a. The nursing program shall maintain an individual record for each student.

b. School policy will determine contents necessary to serve the purpose intended. These may include:

- (1) Application.
- (2) Health summary.
- (3) Student final record or transcript.
- (4) Summary of evaluations and achievement.

(5) Results of state board test pool licensing examination.

(6) Verification of change of name if change occurs while enrolled in the school.

c. Student final record or transcript. The student final record submitted to the board of nursing:

(1) Must carry the correct dates of admission to and completion of the program.

(2) Must include the name and location of school of previous enrollment and dates of that enrollment.

(3) Must include legal name of student.

(4) Must be signed by the proper school official.

(5) Must have the school seal affixed. If there is no school seal, the signature must be notarized.

(6) Must be legible.

d. The student final record retained in the permanent file of the school should be signed by the proper official and have the school seal affixed.

2.6(3) Provision shall be made for the protection of records against loss, destruction and unauthorized use.

2.6(4) School catalog.

a. Information about the school shall be published periodically (at least every two years).

b. The publication shall be dated and include:

(1) Philosophy and objectives of the school.

(2) A general description of the program.

(3) Curriculum plan.

(4) Brief course descriptions.

(5) Facilities and conditions provided for student learning and welfare.

(6) Faculty.

(7) Statement of tuition, fees and refund policies.

(8) Statement regarding ethical practices, including recruitment and advertising.

(9) Housing and residence facilities.

2.7(152) Evaluation.

2.7(1) Evaluation shall be a planned, ongoing activity of the school of nursing directed toward the improvement of the program, faculty and students.

2.7(2) The plan for evaluation shall be in writing and take into consideration the following:

a. Program evaluation should assist the faculty in determining accomplishments, setting new goals and making a blueprint for action.

b. Evaluation of the individual faculty member is part of the total evaluation process.

c. The faculty shall make provision for the evaluation of student performance at specified intervals. Since the student is the direct

object of the evaluation process, provision must be made for him to participate actively.

2.8(152) Physical facilities of the program.

2.8(1) Physical facilities shall be appropriate to the type of program and size of the student body and include:

a. Classrooms.

b. Offices for faculty and clerical staff.

c. Library.

(1) Holdings shall be commensurate with the needs of the program. Library hours shall provide for maximum usage by students.

(2) Audio-visual equipment should be provided so that a multi-media approach to learning can be used.

d. Conference rooms.

e. Residence facilities, if provided, should provide healthful and pleasant surroundings.

2.9(152) Clinical resources.

2.9(1) The clinical resource (hospital, extended care facility, nursing home) to which the student is assigned for clinical practice is considered an integral part of the nursing program.

2.9(2) The following criteria must be met:

a. There shall be a well organized and directed nursing service department.

b. There shall be an environment in which effective learning can take place and in which the student is recognized as a learner.

c. There shall be an adequate number of qualified professional and other nursing personnel to insure safe care of the patient.

d. There shall be a sufficient number of patients to provide adequate learning experiences.

2.9(3) Clinical resources used for student experience shall be selected so that the best experience in each major area of nursing can be secured. Community resources outside of hospitals should be investigated.

2.9(4) The clinical resource must be surveyed and approved by the board of nursing before it can be used for student experience.

2.9(5) Accreditation.

a. *Hospitals.*

(1) Community health facilities service, state department of health.

(2) Joint Commission on Accreditation of Hospitals.

(3) If appropriate, bureau of professional education, American Osteopathic Association.

b. *Nursing homes and extended care facilities.* Community health facilities service, state department of health.

2.10(152) Reports.

2.10(1) The head of the nursing program should make at least an annual written report to the controlling agency.

2.10(2) The head of the nursing program shall submit an annual report to the board of nursing on forms provided. This report will provide current data on:

a. Progress toward achievement of its stated objectives in nursing education.

b. Qualifications and major responsibilities of the dean-chairman, director, co-ordinator and of each faculty member.

c. Policies used for selection, promotion and graduation of students.

d. Practices followed in safeguarding the health and well being of students.

e. Current enrollment by class and student-teacher ratios.

f. Number of admissions to school per year for past five years.

g. Number of graduations from school per year for past five years.

h. Performance of students on state board test pool examinations for past five years.

i. Curriculum plan.

j. Brief course descriptions.

k. Descriptions of resources and facilities, clinical areas, and contractual arrangements which reflect upon the academic program.

l. Copy of audited fiscal reports, including a statement of income and expenditures.

m. Achievements of past year.

n. Goals for present year.

2.10(3) Forms for reporting the following information to the board will be sent to schools at the appropriate time:

a. Legal name and address of students admitted.

b. Legal name of candidates for state board test pool examinations.

2.10(4) Special reports.

a. The board shall be informed in writing regarding:

(1) Change in ownership or administrative control of the school.

(2) Changes in administrative personnel in the school and the controlling agency

(3) Dismissal of a student for reasons outlined under sections 147.55 and 147.56, *Revocation of Licenses* in the "Law of Iowa as it Pertains to the Practice of Nursing".

2.11(152) Board approval requirements.

2.11(1) Board approval is required before the following can be instituted.

a. Major curriculum change to include:

(1) Alteration of the present curriculum which increases or shortens the program, exclusive of vacation days.

(2) Changes in use of co-operating agencies.

(3) Major change in course offering.

b. Experimentation which represents a deviation from these rules and regulations. The board of nursing "Guide to Experimentation in Nursing Education" shall be followed.

c. Schools with interim or provisional accreditation shall request board approval to increase the number of students admitted to a program.

d. All schools regardless of accreditation status must have board approval to admit additional classes during a given school year.

e. Eight copies of all above proposed changes shall be submitted to the executive director one month prior to a regular board meeting.

CHAPTER 3

**LICENSURE TO PRACTICE—
REGISTERED NURSE**

3.1(152) Licensure by examination.

3.1(1) Official examination.

a. The state board test pool examination constructed by the evaluation service of the National League for Nursing shall be the official licensing examination of the Iowa board of nursing.

b. The passing score for each series of the Iowa licensing examination shall be determined by the Iowa board of nursing.

c. The Iowa certificate to practice nursing will not be issued until the final record (transcript) has been received.

d. The licensing examination shall be administered in Des Moines three times a year.

e. State board test pool examination statistics:

(1) Compiled once a year and include all graduates of all Iowa schools for the year.

(2) Identity of schools other than the one to which the report is sent is not revealed.

(3) Scores achieved by individual applicants are personal information and hence will be released only on permission of the applicant.

f. Licensed practical nurse graduating from a school preparing the registered nurse.

(1) The board shall be notified on list of eligible candidates submitted for the state board test pool examination of any candidates already licensed as a licensed practical nurse.

(2) When the candidate is issued a registered nurse license to practice nursing, his licensed practical nurse license will be put on inactive status.

3.1(2) Application.

a. The application form and instructions for filing are provided by the Iowa board of nursing.

b. The completed application, accompanied by the statutory fee and identification picture, shall be submitted in advance of the published deadline for the desired examination date.

c. Only a person who has filed the required application and has been notified of acceptance by the Iowa board of nursing will be permitted to write the examination.

d. Prior to the examination date each accepted applicant will be sent an admission card which shall be presented by the applicant for admission to the examination center.

3.1(3) *Qualifications.*

a. Requirements set forth in the Code must be met.

b. All requirements for graduation from an accredited school of nursing, including theory and clinical experience, must be completed before examination date.

c. Accredited school of nursing means one approved by the Iowa board of nursing or by a similar board in another jurisdiction to prepare persons for registered nurse licensure.

d. Previous conviction of a felony does not automatically bar an individual from eligibility for licensure. In order to determine eligibility, the applicant must be reviewed by the board of nursing to determine that qualification of good moral character is met.

3.1(4) *Work permit.*

a. A work permit to practice nursing for compensation at the general staff level will be issued to new graduates of Iowa programs by the board of nursing upon receipt of proof of graduation from an approved school of nursing. A letter from the director or the official transcript shall be considered proof of graduation.

b. The work permit shall be effective on the legal finishing date.

c. The graduate must appear for the first scheduled examination following graduation unless a written valid excuse is submitted to the board of nursing.

d. A second permit may be issued to a candidate who fails no more than two areas of the examination upon application for the next scheduled examination.

e. No more than two work permits will be issued.

f. Any candidate who fails three or more areas on the examination must return his work permit to the board of nursing. No further work permit will be issued.

g. A work permit may be issued by the board of nursing to graduates of approved schools of nursing in other states who submit documentary evidence to the Iowa board of nursing that they have either applied for or written the licensing examination in that state. All of the above regulations (a-f) apply in these cases.

h. Work permits must be signed by the permittee to be valid.

i. A holder of a work permit shall not use the title registered nurse or use the abbreviation R.N. in Iowa until his certificate is issued although he may be employed in nursing while the permit is valid.

3.1(5) *Re-examination.*

a. Any applicant who fails three or more areas of the examination shall be required to rewrite the entire examination (all five areas).

b. An applicant who fails one or two areas of the examination shall be required to write only the area or areas failed.

c. An applicant who fails to pass the Iowa licensing examination may rewrite the area or areas as above until a passing score is attained.

After the first failure, candidate may repeat the required areas of the examination without further preparation than what they wish to pursue on their own initiative.

d. Application for re-examination shall be a letter of intent accompanied by the statutory fee and identification picture. Application shall be submitted in advance of the published deadline for the desired examination date.

3.1(6) *Nurses educated in another country.*

a. Standardized tests may be used as an evaluation device.

b. If the individual was graduated in 1950, or thereafter, he must have taken the state board test pool examination and achieved at least a score of 350 in each area.

c. The transcript from the school of nursing must show theory and practice in all five areas (medical, surgical, obstetrics, nursing of children and psychiatric nursing) if required in Iowa at the time of his graduation.

d. The board will accept midwifery in lieu of obstetrical nursing.

e. The candidate will be required to enroll in an approved school of nursing to make up deficiencies.

f. Individuals writing the state board test pool examination will follow the same schedule as other first time candidates.

3.2(152) *Licensure without examination by interstate endorsement.*

3.2(1) *Application.*

a. The application form and instructions for filing are provided by the Iowa board of nursing.

b. The completed application accompanied by the statutory fee and proof of licensure elsewhere shall be filed with the Iowa board of nursing.

3.2(2) *Qualifications.*

a. Applicants for licensure in Iowa as a registered nurse must meet the qualifications for licensure in effect at the time of their graduation from their school of nursing.

b. A person licensed as a registered nurse in another United States jurisdiction by waiver shall be accepted for Iowa licensure only if the waiver period corresponds to that in Iowa.

c. An applicant must have written the same licensing examination as that administered in Iowa and achieved scores established as passing for that series by the Iowa board of nursing unless he graduated and was licensed by examination prior to September, 1946.

d. An applicant whose licensing examination scores do not meet the Iowa requirements shall rewrite the current Iowa examination in order to raise his scores to meet Iowa standards.

e. A registered nurse who is based and currently licensed in another state does not need an Iowa license to perform consultant services in Iowa.

f. High school equivalency shall be the high school equivalency certificate issued by the state department of public instruction.

3.2(3) *Work permit.*

a. A work permit to practice nursing in Iowa for a period up to thirty days shall be issued by the Iowa board of nursing to an applicant who is a graduate of an approved United States school of nursing and is licensed by examination in another United States jurisdiction upon submission of the current, valid license from another state or completed endorsement form.

b. Such permit allows employment in nursing in Iowa while application credentials are being assembled and Iowa certificate issued. The work permit does not entitle the individual to use the abbreviation R.N. or the title registered nurse.

c. If the permit expires and the certificate has not been issued, a second permit may be issued for a period not to exceed fifteen days.

d. A work permit shall not be issued to an applicant educated in a foreign country until all credentials are on file and eligibility for licensure has been determined.

3.3(147) *Annual renewal.*

3.3(1) The application form and instructions for renewal of license to practice nursing as a registered nurse will be mailed to the licensee at least ninety days prior to expiration of his license.

3.3(2) In order for a change of name to appear on the renewal license, the board of nursing must be notified. Name can be changed by:

a. Submitting marriage certificate, or

b. Submitting notarized change of name card supplied by the board of nursing.

3.3(3) An applicant for renewal of license, except if on inactive status, shall pay the statutory penalty fee plus the statutory renewal fee if the application for renewal is postmarked after June 30.

3.4(147) *Reinstatement.*

3.4(1) A delinquent letter will be sent each year after July 1 to those licensees who fail to renew their license or fail to ask for inactive status.

3.4(2) Licensees who fail to notify the board of nursing of change of address as provided by statute shall pay statutory reinstatement fees.

3.5(147) *Enforcement.*

3.5(1) *Discipline of licensees.*

a. All complaints regarding licensees or those purporting to be registered nurses shall be investigated by the staff or inspector of the board of nursing.

b. In investigating such complaints the licensee may be asked to appear at a board meeting for consultation by board members.

c. The board may accept the voluntary surrender of a license.

d. Any person whose license has been revoked or suspended may apply to the board for reinstatement at any time. Upon submission of documentary evidence of rehabilitation of the licensee, the board may reinstate the license or remove the license from suspension. The board may impose reasonable terms and conditions in conjunction with such action.

e. An Iowa license to practice nursing as a registered nurse will not be issued by endorsement to an individual whose license to practice is under revocation, suspension, or, if applicable, probation, in another state.

CHAPTER 4

LICENSURE TO PRACTICE— LICENSED PRACTICAL NURSE

4.1(152) *Licensure by examination.*

4.1(1) *Official examination.*

a. The state board test pool examination constructed by the evaluation service of the National League for Nursing shall be the official licensing examination of the Iowa board of nursing.

b. The passing score for the Iowa licensure examination shall be determined by the Iowa board of nursing.

c. The Iowa certificate to practice nursing will not be issued until the final record (transcript) has been received.

d. The licensing examination shall be administered in Des Moines twice a year.

e. State board test pool examination statistics:

(1) Compiled once a year and include all graduates of all Iowa schools for the year.

(2) Identity of schools other than the one to which the report is sent is not revealed.

(3) Scores achieved by individual applicants are personal information and hence will be released only on permission of the applicant.

f. The board shall be notified when an individual licensed by waiver as a licensed practical nurse enrolls in a practical nurse program. Upon successful completion of the program, the status of the individual's license will be changed to graduate of an approved program. The state board test pool examination need not be repeated.

4.1(2) Application.

a. The application form and instructions for filing are provided by the Iowa board of nursing.

b. The completed application, accompanied by the statutory fee and identification picture, shall be submitted in advance of the published deadline for the desired examination date.

c. Only a person who has filed the required application and been notified of acceptance by the Iowa board of nursing will be permitted to write the examination.

d. Prior to the examination date each accepted applicant will be sent an admission card which shall be presented by the applicant for admission to the examination center.

e. Those individuals who apply for the licensing examination by virtue of one year in a school preparing registered nurses must submit an official transcript for review to determine eligibility.

f. Nursing content required for a licensed practical nurse shall include successful completion of theory and clinical experience in four basic areas, i.e. medical nursing, surgical nursing, obstetric nursing and nursing of children.

g. An individual who does not meet requirements may enroll in an approved school of practical nursing with advanced standing and complete the program in practical nursing.

4.1(3) Qualifications.

a. Requirements set forth in the Code must be met.

b. All requirements for graduation from an accredited school of practical nursing, including theory and clinical experience, must be completed before examination date.

c. Accredited school of practical nursing means one approved by the Iowa board of nursing or by a similar board in another jurisdiction to prepare persons for practical nurse licensure.

d. Previous conviction of a felony does not automatically bar an individual from eligibility for licensure. In order to determine eligibility, the applicant must be reviewed by the board of nursing to determine that qualification of good moral character is met.

4.1(4) Work permit.

a. A work permit to practice practical nursing for compensation will be issued by the board of nursing upon receipt of proof of graduation from an approved school of practical nursing.

(1) A letter from the co-ordinator or the official transcript will be considered proof of graduation.

(2) The work permit shall be effective on the legal finishing date.

(3) The graduate must appear for the first scheduled examination following graduation unless a written valid excuse is submitted to the board of nursing.

(4) A permit will be reissued once in the event of failure on the licensing examination upon application for the next scheduled examination.

b. A work permit to practice practical nursing for compensation may be issued by the board to graduates of approved schools of practical nursing in other states who submit documentary evidence to the board that they have either applied for or written the licensing examination in that state, provided the applicant meets all requirements for licensure as a practical nurse in this state. All of the above [paragraph "a", subparagraphs (1) to (4)] apply in these cases.

c. Those candidates who qualify for the licensing examination by virtue of previous enrollment in a school preparing registered nurses are not eligible for a work permit.

d. A holder of a work permit shall not use the title licensed practical nurse or use the abbreviation L.P.N. in Iowa until his certificate is issued although he may be employed in practical nursing while the permit is valid.

4.1(5) Re-examination.

a. An applicant who fails to pass the Iowa licensing examination may rewrite the examination until a passing score is attained.

After the first failure, candidates may repeat the examination without further preparation other than what they wish to pursue on their own initiative.

b. Application for re-examination shall be a letter of intent accompanied by the statutory fee and identification picture. Application shall be submitted in advance of the published deadline for the desired examination date.

4.1(6) Nurses educated in another country. If the applicant for licensure in Iowa does not meet the requirements for licensure as a registered nurse, he may apply for the practical nurse licensing examination provided qualifications 4.2(2) "e" and "f" are met.

4.2(152) Licensure without examination by interstate endorsement.**4.2(1) Application.**

a. The application form and instructions for filing are provided by the Iowa board of nursing.

b. The completed application accompanied by the statutory fee and proof of licensure elsewhere shall be filed with the Iowa board of nursing.

c. A work permit or license to practice as a licensed practical nurse shall be received by the applicant from the Iowa board of nursing prior to employment.

4.2(2) Qualifications.

a. Applicants for licensure in Iowa as a licensed practical nurse must meet the qualifications for licensure in effect at the time of their graduation from their school of nursing.

b. A person licensed as a licensed practical nurse in another United States jurisdiction by waiver shall be accepted for Iowa licensure only if the waiver period corresponds to that in Iowa.

c. An applicant must have written the same licensing examination as that administered in Iowa and achieved score established as passing for that examination by the Iowa board of nursing unless he graduated and was licensed by examination prior to July 1951.

d. An applicant whose licensing examination score does not meet the Iowa requirements shall rewrite the current Iowa examination in order to raise his scores to meet Iowa standards.

e. Tenth grade equivalency shall be determined by the general educational development test. A standard score of not less than thirty-five on each test or an average standard score of forty-five or above on the five tests will be accepted.

f. High school equivalency shall be the high school equivalency certificate issued by the state department of public instruction.

4.2(3) *Work permit.*

a. A work permit for the practice of practical nursing in Iowa for a period up to thirty days shall be issued by the Iowa board of nursing to an applicant who is a graduate of an approved United States school of nursing and is licensed by examination in another United States jurisdiction upon submission of the current, valid license from another state or completed endorsement form.

b. Such permit allows employment in practical nursing in Iowa while application credentials are being assembled and Iowa certificate issued. The work permit does not entitle the individual to use the abbreviation L.P.N. or the title licensed practical nurse.

c. If the permit expires and the certificate has not been issued, a second permit may be issued for a period not to exceed fifteen days.

4.3(147) *Annual renewal.*

4.3(1) The application form and instructions for renewal of license to practice nursing

as a licensed practical nurse will be mailed to the licensee at least ninety days prior to expiration of his license.

4.3(2) In order for a change of name to appear on the renewal license, the board of nursing must be notified. Name can be changed by:

a. Submitting marriage certificate, or

b. Submitting notarized change of name card supplied by the board of nursing.

4.4(147) *Reinstatement.*

4.4(1) A delinquent letter will be sent each year after July 1 to those licensees who fail to renew their license or fail to ask for inactive status.

4.4(2) Licensees who fail to notify the board of nursing of change of address as provided by statute shall pay statutory reinstatement fees.

4.5(147) *Enforcement.*

4.5(1) *Discipline of licensees.*

a. All complaints regarding licensees or those purporting to be licensed practical nurses shall be investigated by the staff or inspector of the board of nursing.

b. In investigating such complaints the licensee may be asked to appear at a board meeting for consultation by board members.

c. The board may accept the voluntary surrender of a license.

d. Any person whose license has been revoked or suspended may apply to the board for reinstatement at any time. Upon submission of documentary evidence of rehabilitation of the licensee, the board may reinstate the license or remove the license from suspension. The board may impose reasonable terms and conditions in conjunction with such action.

e. An Iowa license to practice nursing as a licensed practical nurse will not be issued by endorsement to an individual whose license to practice is under revocation, suspension, or, if applicable, probation, in another state.

[Filed May 12, 1970; amended August 11, 1970]

PHARMACY EXAMINERS

CHAPTER 1 LICENSURE

1.1(147) *Licensure examination dates.* The board of pharmacy examiners shall fix the dates for the examination both in Des Moines and Iowa City and applications must be presented to the board at least ten days before the dates set for the examination.

1.2(147) *Examination fee.* The fee for examination shall be twenty-five dollars and is to accompany the application.

1.3(147) *Unmounted photograph.* The application for examination shall be accompanied

by an unmounted photograph of a size approved by the board.

1.4(147) *Notarized statement.* The application for examination shall be made as a sworn statement.

1.5(147) *Re-examination applications.* Each applicant for re-examination shall make request for such re-examination on proper forms, to be provided by the board, and the request for such re-examination shall become a part of the official files.

1.6(147) *Records preserved.* All applications, with necessary statements or requests

for re-examination, together with the actual written examination, shall be preserved in the files of the board of pharmacy examiners.

1.7(147) Grading examinations.

1.7(1) A passing grade shall be considered a general average of not less than seventy-five percent and no grade in any subject shall be less than sixty percent, except that a grade of seventy-five percent is required on the practical examination.

1.7(2) Failure in one or more subjects shall require the applicant to take another examination in all subjects.

1.7(3) Any applicant for a license who fails in his examination shall be entitled to a second examination without further fee at any time within a period of fourteen months after the first examination.

1.8(147) Date of notice. Grades and certificates shall be mailed to each new registrant as soon after the examination as possible.

1.9(155) Internship requirements. Each applicant must furnish to the board an employing pharmacist's affidavit giving complete information covering internship experience in a pharmacy. Said experience must comply with the "Minimum Standards for Evaluating Practical Experience", as set forth in chapter 3 of these rules. Practical experience must be acquired after successfully completing not less than one year of prepharmacy training and no experience will be allowed while in actual attendance at college.

1.10(155) Internship after graduation. Any person making application to the pharmacy board to be licensed by examination after January 1, 1963, must have completed one year of internship, as defined in chapter 3 of these rules, at least three months of which must be acquired after graduation from an approved college of pharmacy. Any internship on file in the office of the pharmacy examiners prior to January 1, 1963, will be required to meet the administrative rules relative to internship requirements in force on that date.

1.11(155) College graduate certification. Each applicant shall furnish a certificate from a recognized college of pharmacy stating that he has successfully graduated from a school or college of pharmacy offering a minimum five-year course graduating with a bachelor of science degree in pharmacy.

1.12(155) Application for examination—requirements. On each application for examination, the applicant must state his correct age; place of birth; name and location of high school and date of graduation; citizenship, and pharmaceutical experience under a registered pharmacist.

1.13(155) Examination subjects.

1.13(1) Written examinations shall be given in the following subjects: Pharmacy, phar-

macology and toxicology, chemistry, pharmaceutical and chemistry calculations.

1.13(2) Practical examination shall consist of an examination of prescription laboratory techniques.

1.13(3) An oral examination shall be given to each applicant before the issuance of any license to practice pharmacy.

These rules are intended to implement chapters 147 and 155 of the Code.

[Filed April 11, 1963]

CHAPTER 2

PHARMACY BUSINESS LICENSES

2.1(155) Pharmacy business license requirements.

2.1(1) Each person must be not less than twenty-one years of age.

2.1(2) Each person must be of good moral character.

This rule is intended to implement 155.12.

2.2(155) Change of residence and sanitation requirements.

2.2(1) Each pharmacy shall be provided with adequate lighting.

2.2(2) Storage areas, restrooms, basement and all other areas in the pharmacy shall be kept in a thoroughly clean condition.

2.2(3) Every employer must notify the board of pharmacy examiners of any change of address of his pharmacist.

This rule is intended to implement 155.17.

2.3(155) Reference library and prescription equipment.

2.3(1) The following shall be deemed as minimum reference material required of a pharmacy.

a. The latest edition and supplements to the United States Pharmacopeia.

b. The latest edition and supplements to the National Formulary.

c. Up-to-date reference work on recent prescription drugs such as Facts and Comparisons or Modern Drug Encyclopedia.

d. Copies or summaries of federal, state, and local laws governing the practice of pharmacy.

e. An antidote chart—telephone number of the nearest poison control center.

This rule is intended to implement 155.18.

2.3(2) The following shall be considered necessary equipment for the proper compounding and dispensing of drugs and medicines.

a. Class A prescription balance sensitive to 10 mg.

b. Weights—metric and apothecary—complete set.

c. Graduates capable of accurately meas-

uring from 1 ml. to 250 ml. (15 minims to 8 fluid ounces.)

d. Mortars and pestles—glass, porcelain, or wedgewood.

e. Spatulas—steel and nonmetallic.

f. Filtration funnel with filter papers.

g. A heating unit.

h. Suitable refrigeration unit for proper storage of biologicals and other pharmaceuticals.

i. Ointment slab or ointment paper or equivalent.

j. Exempt narcotic and poison register.

k. Glass stirring rods and indicator paper.

l. Powder papers, parchment or wax.

This rule is intended to implement 155.18.

2.4(155) Prescription compounding and dispensing area.

2.4(1) Minimum area, or space, where prescriptions are dispensed, or compounded, shall be no less than fifty square feet. Active and reserve storage area shall be double the dispensing and compounding space, or larger as needed to meet the requirement of the pharmacy.

2.4(2) The prescription dispensing and compounding area shall be in open view and clearly identified.

This rule is intended to implement 155.17.

2.5(155) Prescription identification.

2.5(1) All prescriptions shall be dated and numbered by the pharmacist at the time of filling and dated at the time of refilling.

2.5(2) The original prescription must be retained by the pharmacy filling the prescription, excepting in governmental or compensational prescriptions in which case a copy or a record must be retained.

2.5(3) All medication dispensed on a prescription shall be in a clean container and have a clean legible label.

2.5(4) No pharmacist shall fill, and no pharmacy shall permit the filling of, a copy of a prescription.

2.5(5) Every reference copy of a prescription shall bear the following statement—"This prescription copy is issued for medical practitioner reference only."

This rule is intended to implement 155.3.

2.6(155) Return of drugs and appliances. For the protection of the public health and safety, no prescription drugs of any description or items of personal contact nature which have been removed from the original package or container after sale, shall be accepted for return, exchanged or resold by any pharmacist.

This rule is intended to implement 155.3.

2.7(155) Pharmacist temporary absence. In case of the temporary absence of the pharmacist, or the temporary absence of the pharma-

cist while fulfilling the pharmaceutical services in a local hospital or other health care institution, the pharmacy must display a card or sign which can be read from the front of the pharmacy "PHARMACIST TEMPORARILY ABSENT. NO PRESCRIPTIONS WILL BE FILLED UNTIL HIS RETURN". Letters not less than 1¼ inches high.

This rule is intended to implement 155.3.

[Filed May 16, 1967]

CHAPTER 3

MINIMUM STANDARDS FOR EVALUATING PRACTICAL EXPERIENCE

3.1(155) Internship. These regulations are for the purpose of defining and regulating the practical experience requirements of prospective pharmacists as provided by Iowa statute, chapter 155.

3.2(155) Effective date. These regulations shall take effect immediately after filing with the secretary of state, but the provision contained herein shall not nullify any period of internship experience by any individual previous to its adoption provided such period of internship is filed in a proper manner with the secretary of the board of pharmacy.

This rule is intended to implement 155.6.

3.3(155) Definitions. As used herein the following terms are defined.

3.3(1) "Pharmacist intern" or "intern" means a person registered by the state board of pharmacy for the purpose of obtaining instructions in the practice of pharmacy from a pharmacist preceptor licensed in this state pursuant to the practical experience requirements of the Code. The board may register, as an intern, any person who has satisfied the board that he is of good moral character, and, who has successfully completed not less than one year of prepharmacy training and who has been accepted for admission to a college of pharmacy recognized and approved by the board.

3.3(2) "Year of practical experience in pharmacy" means fifty-two work weeks of not less than forty hours per week of internship training acquired under the supervision of a preceptor, not concurrent with undergraduate academic work other than established vacation periods.

3.3(3) "Preceptor" means a person licensed as a pharmacist by the state board of pharmacy, or by a duly constituted licensing agency of any state.

a. Each preceptor shall have been actively engaged in full-time practice of pharmacy for at least two years.

b. Each preceptor shall be a graduate of a recognized college of pharmacy.

c. Each preceptor shall subscribe to the

principles of the Code of Ethics of the American Pharmaceutical Association.

d. Each preceptor shall attend or participate in at least one professional continuing educational meeting, seminar, or correspondence course, recognized by the board, each year.

e. The pharmacy in which a preceptor is practicing, must fill at least six thousand prescriptions annually and have a grade of "A" as defined in the board's inspection and rating report and must be operated in a professional manner.

3.3(4) "In a professional manner," as used in connection with these regulations means being operated within federal, state, and local laws. Any pharmacist found to be in violation of the law, or operating his pharmacy in other than a clean and orderly manner, is not operating in a "professional manner" and, therefore, is not eligible for certification as a preceptor. This rule is intended to implement 155.6.

3.4(155) Interns shall not be left in charge of a pharmacy at any time when direct personal supervision of a pharmacist is required. Violation of this rule will result in citation of the intern and pharmacist involved, before the board, for such action as the board may desire after a proper hearing.

This rule is intended to implement 155.6.

3.5(155) Registration and reporting.

3.5(1) Every person shall register before beginning his internship. Registration shall remain in effect during successive training periods if progress reports, and other required records and affidavits prescribed by the board are executed promptly upon beginning or terminating employment and if the board is satisfied that the registrant is in good faith and with reasonable diligence pursuing a degree in pharmacy.

3.5(2) Credit for internship time will not be granted unless registration, progress reports, and other required records and affidavits of experience for preceding time are completed.

a. The pharmacist-intern shall be so designated in his professional relationships, and shall not falsely assume to be a pharmacist. The board shall upon proper registration issue to the intern a pocket registration card for purposes of identification and verification of his role as an intern.

b. All registered interns shall notify the board immediately upon change of employment or mailing address.

c. The intern shall maintain additional records of his professional activities. Such records are to be prescribed by the board for the purpose of recording details of the scope of internship experience, and are to be submitted not less than quarterly during the internship year. Quarterly progress reports and other required records must be filed in the office of

the board not later than thirty days following completion date of each quarter.

3.5(3) No credit shall be given for experience prior to registration as an intern, except that credit may be granted for experience obtained while employed as an intern or pharmacist in another state if properly documented.

This rule is intended to implement 155.6.

3.6(155) Training requirements.

3.6(1) The intent of these regulations is to provide a proper preceptor-intern (teacher-student) relationship within the context of the employer-employee relationship, provide a broad base of internship experience and to supplement academic training in a manner which prepares the intern for all aspects of the practice of pharmacy.

3.6(2) Nothing in these regulations shall imply that the standards described herein are intended to change reciprocal agreements with other states.

3.6(3) When an intern desires to obtain credit for training received in a state other than Iowa, he shall abide by all the provisions of these regulations. Where a possible conflict may exist between the provisions of this rule and the requirements of the state in which the intern is training, the intern shall contact the secretary of the board of pharmacy and outline any possible problem.

3.6(4) No more than one intern shall be trained by a preceptor at one time.

3.6(5) Upon registration and payment of two dollars, interns will be furnished all progress reporting forms and such other records prescribed by the board. Interns and preceptors will be furnished a copy of the "PHARMACY PRECEPTOR'S GUIDE" sponsored by the National Association of Boards of Pharmacy and the American Association of Colleges of Pharmacy. The guide is furnished to suggest appropriate types, scope and order of training experiences. It is not intended to be restrictive in the method of instruction, but shall be used as a guide to insure that the intern's practical experiences are commensurate with his educational level, and that his total experience will be broad in scope.

This rule is intended to implement 155.6.

3.7(155) Practical experience in armed forces. No more than six months of practical experience acquired while engaged in pharmaceutical pursuits in the armed forces will be accepted toward the one year prerequisite. Said experience must be substantiated by a notarized affidavit signed by a duly licensed pharmacist under whose supervision the applicant has served and must comply with the minimum standards of evaluating apprentice training.

This rule is intended to implement 155.6.

[Filed July 19, 1967]

CHAPTER 4

FEES FOR DUPLICATE LICENSES AND
CERTIFICATION OF GRADES

4.1(147) Fees. Duplicate certificates for registered pharmacists may be issued for a fee of one dollar each.

4.2(147) Duplicate annual renewals. Duplicate annual renewals may be issued by the board of pharmacy examiners without charge.

4.3(147) Fee—certification of grades. Certification of grades shall be made upon payment of a ten dollar fee.

4.4(155) Duplicate wholesale narcotic license. Upon a showing of loss or destruction of the original, a duplicate wholesale narcotic license may be issued by the board of pharmacy examiners without a fee.

These rules are intended to implement chapters 147 and 155 of the Code.

[Filed April 11, 1968]

CHAPTER 5

RECIPROCAL REGISTRATION

5.1(147) Originates from state of registration by examinations. The applicant must be a registered pharmacist by examination in some state of the United States with which Iowa has a reciprocal agreement, and must be in good standing at the time he makes application.

5.2(147) Educational requirements. If the applicant was licensed prior to July 1, 1917, the applicant must make affidavit to at least four years of experience under the supervision of a registered pharmacist before registration. After July 1, 1917, affidavit must be made to at least two years experience and two years completed work in a recognized college of pharmacy or three years of college work and one year experience. No experience that was gained while attending a school or college of pharmacy will be accepted. A certified copy of college work from the dean of a college or, a certified copy of an affidavit from the secretary of the board of the state from which the applicant applies relating to experience as an apprentice or assistant, must be furnished to the Iowa board of pharmacy examiners. Any pharmacist registered as an apprentice or assistant prior to October 1, 1917, and licensed before July 1, 1924, may be exempted from the college requirement.

5.3(147) Examination eligibility. Applicant must have been eligible to take the examination for a pharmacist in the state from which reciprocal licensure is sought. If he was not qualified to take the Iowa examination at that time, he would not be eligible for reciprocal registration.

5.4(147) Minimum grade requirement and practice after licensure. He must have passed the board in the state from which reciprocal licensure is sought with a general average of

seventy-five percent and not have been below sixty percent in any one subject. He must have practiced pharmacy in the state from which reciprocal licensure is sought for at least one year subsequent to his registration there, or pass an oral and practical examination prescribed by the Iowa board of pharmacy examiners.

5.5(147) Examination failure. An application for reciprocal registration will not be considered if the applicant has at one time taken the Iowa examination for pharmacists and has failed to pass the same.

5.6(147) Reciprocity fee. The fee for reciprocal registration is fifty dollars, which must accompany the application. The fee is returned if the application is denied.

5.7(147) Oral examination. Reciprocal registration will not be granted until the application is approved by all members of the pharmacy board in regular session and after the applicant has made a personal appearance before the entire board, showing proof of qualifications, and has passed a satisfactory oral examination on the Iowa pharmacy laws.

5.8(147) Character vouchers. Applicant must file an unmounted photograph bearing his signature as well as the signatures of the two registered pharmacists who sign the character vouchers included in the official application obtained from the National Association of Boards of Pharmacy.

5.9(147) Necessary credentials. The application blank together with the photo and all other necessary credentials must be filed with the secretary of the Iowa Pharmacy Examiners, Statehouse, Des Moines, Iowa.

5.10(147) Fiscal registration. No additional collection of registration fees shall be made for the balance of the fiscal year in which the applicant has been declared fully registered by reciprocity by the pharmacy examiners.

These rules are intended to implement chapters 147 and 155 of the Code.

[Filed April 11, 1968]

CHAPTER 6

MINIMUM STANDARDS FOR THE
PRACTICE OF PHARMACY

6.1(155) Authorized person. For the purpose of section 155.6 of the Code, the phrase "fill the prescriptions" shall be deemed to include the following:

6.1(1) Read and interpret the prescription of a duly licensed medical practitioner, whether transmitted to the pharmacist by writing or orally.

6.1(2) Accurately measure, or compound, ingredients specified by the medical practitioner.

6.1(3) Read and interpret, and write, adequate label directions as are necessary to assure the patient's understanding of the prescriber's intentions.

6.1(4) Affix label in, or to the container containing the medication, prescribed for the patient.

6.2(155) Mechanical devices. Except for printed or typewritten instructions on labels and simple counting and weighing tools, no mechanical device shall be used to perform the functions contained in 6.1(1), 6.1(2), 6.1(3) and 6.1(4).

These rules are intended to implement chapter 155 of the Code.

[Filed April 11, 1968]

CHAPTER 7

ITINERANT VENDORS

7.1(203) Upon a showing of loss or destruction of the original, a duplicate vendor's license may be issued by the board of pharmacy examiners for a fee of one dollar each.

7.2(203) Itinerant vendor's licenses shall be issued for a period of no less than one year.

These rules are intended to implement chapter 203 of the Code.

[Filed April 11, 1968]

CHAPTER 8

NARCOTIC DIVISION

8.1(204) Record keeping requirement. Medical practitioners shall keep daily records of all narcotic drugs dispensed or administered by said medical practitioner or under the medical practitioners supervision, except for hospital records maintained in compliance with section 151.413 of the federal regulation.

8.1(1) Said daily record shall show the date the narcotic drug was received by the medical practitioner, the name and address of the person from whom received, and the kind and quantity of drugs received.

8.1(2) Said daily record shall also show the date of dispensing or administering, the name and address of the person to whom dispensed or administered, the kind of drug or drugs dispensed or administered and the quantity of the drug or drugs dispensed or administered.

8.2(204) Class "X" and "M" prescription drug refilling. Class "X" and class "M" narcotic prescription drugs being exempt from the limitation of "shall not be renewed" under federal law, are hereby declared to be exempt from the same limitation for purposes of Iowa law.

8.2(1) Class "X" and class "M" narcotic prescription drugs being exempted from the prescription filling limitation of chapter 204 of the Code, are hereby made subject to the same prescription drug refill provisions as

other prescription drugs under chapter 155 of the Code, as amended by chapter 167, Acts of the 62nd General Assembly. If refills are authorized by the medical practitioner pharmacists may refill class "X" and class "M" prescriptions up to one year after the date on which the prescription was issued, and may refill said class "X" and "M" prescriptions up to eleven times during the year from date of issuance of said prescription, except when otherwise ordered by the medical practitioner issuing the prescription.

These rules are intended to implement chapter 155 and chapter 204 of the Code, as amended by chapter 167, Acts of the 62nd General Assembly.

[Filed April 11, 1968]

CHAPTER 9

POISONS

9.1(205) The following shall constitute "the preparations of these poisonous drugs" as used in 205.5 of the Code.

Any compound or mixture in pharmacy made after a formula that contains as an ingredient one or more of the substances listed in 205.5 of the Code.

9.2(205) The following shall constitute "potent poisons" as used in 205.7 of the Code:

Any substance which, when introduced in relatively small amounts into an organism or system, may chemically produce an injurious or deadly effect or destroy living tissue.

9.3(205) The following shall constitute "not in themselves poisonous" as used in 205.8(1) of the Code:

Any substance which, when introduced in relatively small amounts into an organism or system without producing injurious or deadly effect or destroy living tissue.

Note: The following ruling is hereby made on this twentieth day of January, 1960 by the board of pharmacy examiners pursuant to authority given it by 205.13 of the Code.

The application of Lehn and Fink Products Corporation has been presented to the board requesting a ruling on the question as to whether the product sold under the registered trade name "Lysol Brand Disinfectant" and manufactured by Lehn and Fink Products Corporation is a poison within the provisions of chapter 205 of the Code. After oral hearings at which evidence was presented by Lehn and Fink Products Corporation and transcribed and printed in permanent form, and after making an investigation of the facts which consisted, among other things, consultation with experts in the field of chemistry, medicine and toxicology, and by examining written reports from poison control centers and the statistical services of the United States department of health, education and welfare, as well as other public health agencies, and being fully advised in the premises, the board of pharmacy examiners hereby finds:

1. That the product known as "Lysol Brand Disinfectant", manufactured by Lehn and Fink

Products Corporation and presently being marketed in the state of Iowa, is a preparation which contains cresol (listed on the label of said product as cresylic acid) and, under the rules of this board, falls within the prohibitions set forth in 205.5 of the Code.

2. That the product known as "Lysol Brand Disinfectant", manufactured by Lehn and Fink Products Corporation, is a "potent poison", as provided in 205.7 of the Code and the rules of this board in that if the same is taken in relatively small quantities into the body, it will produce injury or death or destroy living tissue.

3. That "Lysol Brand Disinfectant", manufactured by Lehn and Fink Products Corporation is not a proprietary medicine, as it is a disinfectant and, further, it is poisonous as provided in 205.8 (1), and 155.3 (7), of the Code and the rules of this board in that if taken into the body in relatively small quantities, it will produce injury or death or destroy tissue.

It is, therefore, the rule of the board of pharmacy examiners, upon the application of Lehn and Fink Products Corporation, and for the purposes of enforcing the provisions of chapter 205 of the Code, that:

1. "Lysol Brand Disinfectant", manufactured by Lehn and Fink Products Corporation, falls within the scope of 205.5 of the Code and must be sold by a licensed pharmacist, as provided therein.

2. "Lysol Brand Disinfectant," manufac-

tured by Lehn and Fink Products Corporation, is a "potent poison" and can only be sold under the conditions as set forth in 205.7 of the Code.

3. "Lysol Brand Disinfectant," manufactured by Lehn and Fink Products Corporation, is not a proprietary medicine and is poisonous and, therefore, does not fall within the exclusion of 205.8 (1), and 155.3 (7) of the Code.

9.4(205) No pharmacist or retail pharmacy licensed pursuant to the laws of the state of Iowa shall advertise, directly or indirectly, by any media affecting the public, any drug, medicine or device bearing the legend: "Caution: Federal Law prohibits dispensing without prescription", or whose sale is restricted to a prescription by Iowa law. Nothing in this regulation shall prohibit the furnishing of professional information to qualified medical practitioners.

9.5(205) Any person, violating rule 1, adopted pursuant to section 155.19 may be cited under section 155.13 to show cause

9.6(205) This rule is not intended to and should not in any way establish or restrict the price charged for such drugs, medicines or devices by retail sale.

[Filed January 21, 1960; amended January 31, 1962; March 29, 1963; April 11, 1968]

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Title II

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TITLE I

ADMINISTRATION AND FINANCE

CHAPTER 1

DIVISION OF ADMINISTRATION AND FINANCE

1.1 Aid for institute day.

1.2 Terms defined for aid purposes.

1.3 Tax equalization and state aid—definition of terms.

1.1(286A) Aid for institute day. One day of state aid will be granted each year to all schools which have dismissed a day for a legally called and approved county institute.

1.2(286A) Terms defined for aid purposes.

1.2(1) Attendance. Attendance is the presence of a pupil on days school was officially in session.

School session. A school shall be deemed to be in session when the pupils and teachers are present and the normal program is pursued for a school day.

1.2(2) School day. A school day shall mean that time that school is actually in session for any given division of the public school, and shall include a minimum of not less than five and one-half hours, not including lunch intermission, for all grades above the third; not less than four hours for the first three grades; and not less than three hours in kindergarten, preprimer or primer grades.

1.2(3) Average daily attendance. Average daily attendance is that average obtained by dividing the aggregate attendance for the period (month, semester, year) by the number of days the school was in session for the period.

a. Average daily attendance concerns itself only with days present, not days absent.

b. Where kindergartens or primary grades are limited to half-day sessions count each half-day session as a full day of attendance.

1.2(4) Aggregate attendance. Aggregate attendance means the total of all days of attendance for all the pupils during the period under consideration.

1.3(42) Tax equalization and state aid—definition of terms. For purposes of the administration of chapter 442 of the Code, the following terms shall have the following meaning:

1.3(1) Adjusted gross income. Adjusted gross income shall mean net income as defined in 422.7 of the Code.

1.3(2) Reserved for future use.

1.3(3) Reserved for future use.

1.3(4) Percent of allowable change. Percent of allowable change is defined as the percent of allowable growth per pupil as provided for in 442.2(4).

1.3(5) Proposed growth. Proposed growth for purposes of 442.22 means the school district proposed reimbursable expenditures per pupil in average daily membership, for the current year.

1.3(6) Tax askings. Tax askings for purposes of 442.22 means proposed general fund expenditures, reduced by estimated receipts (other than basic school tax equalization funds and state equalization funds) and further reduced by the estimated unencumbered balance to apply on the budget.

[Amended February 13, 1968]

TITLE II

APPROVED AND CLASSIFIED SCHOOLS AND SCHOOL DISTRICTS

CHAPTER 2

MINIMUM REQUIREMENTS AND STANDARDS FOR INSTRUCTIONAL MATERIALS

DIVISION I

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2.1 Reading programs in general.

2.2 Primer and first grade.

2.3 Second grade.

2.4 Third grade.

2.5 Fourth through eighth grades.

2.6 Other equipment for fourth grade.

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2.8 Sixth through eighth grades.

DIVISION II

STANDARDS FOR THE HIGH SCHOOL

2.9 Condition of books.

2.10 Types of materials for library.

2.11 Encyclopedias.

2.12 Parallel text and supplementary books.

2.13 Books for recreational reading.

2.14 Dictionaries.

2.15 Magazines and periodicals.

2.1(257) Reading programs in general. All educators recognize the importance of a thorough-going reading program. This need has been impressed upon them through investigation, reports, and conferences on reading problems.

In order to help teachers promote and develop an effective reading program the department of public instruction issued a teachers handbook on reading, which should be used as a guide and in conjunction with the

teachers manuals provided by the publisher of the basic reading series used in the school.

Reading is one of the most important experiences children are to have in school. Success or failure depends largely upon reading abilities, as there is a very close relationship between reading and practically every school subject. With this in mind major emphasis has been placed on the reading instructional materials in establishing these minimum requirements and standards.

DIVISION I

STANDARDS FOR THE ELEMENTARY GRADES

2.2(257) Primer and first grade.

2.2(1) Reading readiness materials (Reading Handbook, Pages 32-62).

Preprimer or preprimers of basic series.

Word, phrase, and sentence cards or charts. One set of basic preprimers.

Note: We recommend that the primer or primers of the basic series usually be read before reading preprimers of a different series. (See Reading Handbook, Page 57, Plan A.) Presenting the reading instruction outlined above will insure a vocabulary of the proper number of words and their introduction will follow a planned program.

2.2(2) A basic first reader.

Workbooks which accompany the readers.

Teachers manuals for all basic books shall be provided.

Five broken sets preprimers.

Five broken sets primers.

Three broken sets first readers.

Note: Several broken sets readers should be available because the better readers will read as high as ten or fifteen books in addition to the basic series. (See Reading Handbook, Page 47.) The term broken sets is used to mean that a sufficient number of copies of a reading series are purchased to take care of the different reading groups and a similar number of copies of another series are purchased. The main point to remember is that when changing from a reader of one series to a reader of another series, check the overlap of vocabulary carefully and drill on the new words. (Reading Handbook, Page 59.)

2.2(3) Recreational books should be equal to twice the number of pupils enrolled as a minimum number of recent copies in good condition.

Note: On the average the district should spend annually at least fifty cents per pupil for reading materials, exclusive of textbooks and exclusive of county library funds. (See Library Bulletin, Number 45, Pages 15-17.)

Note: Credit will not be given for sample copies, books with ragged covers, private books donated to the school, books belonging to teachers, and supplementary or basic readers having a copyright earlier than 1935.

2.2(4) A library table and chairs.

A sufficient number of primary chairs for reading groups.

A suitable bulletin board (See Reading Handbook, Pages 126-127).

2.3(257) Second grade. Begin with a book which they can read easily; in most cases it will be first readers, but it may also be primers.

Note: There should be a very high vocabulary overlap with the book or books completed in the first grade.

2.3(1) One set first grade level readers—new materials.

A basic second reader or readers (Reading Handbook, Pages 64-75).

Note: This reader should be of the same basic series used in the primer and first grades.

2.3(2) Workbooks should be used with the basic series.

Note: These workbooks should relate in content and vocabulary with the basic series used.

Teachers' manuals should be provided.

2.3(3) One work-type reader.

Note: At least two drill lessons a week should be given over some of the study skills using a study reader, a dictionary, or teacher-prepared material. (Reading Handbook, Pages 77-78.) Work-type readers are not to be used after finishing the basic text but are to be used along with the basic reader, and the lessons should vary with the teacher's purpose and the child's needs.

2.3(4) Two sets literary or recreatory readers.

Three broken sets of readers of different levels.

Recreational books should be equal to twice the number of pupils enrolled as a minimum number of recent copies in good condition.

2.3(5) A library table and chairs.

A sufficient number of chairs for reading groups.

2.3(6) A bulletin board (Reading Handbook, Pages 126-127).

2.3(7) A set of arithmetic flash cards (addition and subtraction).

2.4(257) Third grade.

2.4(1) One set of first or second-reader level books—not previously read.

A basic third reader or readers (Reading Handbook, Pages 64-73).

Note: This should be the same basic series used in primer, first, and second grades.

2.4(2) Workbooks should be used with the basic series.

Note: These workbooks should relate in content and vocabulary with the basic series used.

2.4(3) Teachers' manuals for all books should be provided.

One set work-type readers.

Note: At least two drill lessons a week should be given over some of the study skills. (Reading Handbook, Pages 77-78.) Work-type readers are not to be used after finishing the basic text but are to be used along with the basic reader, and the lessons should vary with the teacher's purpose and the child's needs.

2.4(4) Two sets literary or recreatory readers.

Three broken sets of readers of different levels.

Recreational books should be equal to twice the number of pupils enrolled as a minimum number of recent copies in good condition.

Note: On the average the district should spend annually at least fifty cents per pupil for reading materials, exclusive of textbooks and exclusive of county library funds. (See Library Bulletin, Number 45, Pages 15-17.)

Note: The department will not grant credit for sample copies, books with ragged covers, private books donated to the school, books belonging to teacher, and supplementary or basic readers having copyright earlier than 1935.

2.4(5) A library table and chairs. A sufficient number of primary chairs for reading groups.

A bulletin board (Reading Handbook, Pages 126-127).

2.4(6) A set of arithmetic flash cards (addition, subtraction, multiplication, and division).

2.5(257) Fourth through eighth grades.

2.5(1) One set of lower grade level books (for easy reading in the fall).

A basic reader (Read carefully Reading Handbook, Pages 75-95).

Note: This reader should be of the same series used in primer, first, second, and third grades. "Schools are courting disaster in their selection of such materials when, in a misguided effort to distribute commercial patronage, they adopt for different primary grades portions of several systems that are essentially incompatible and hence virtually incapable of sequential use."

2.5(2) Teachers' manuals for all basic books should be provided.

2.5(3) One set work-type or content readers.

Note: At least two drill lessons a week should be given over some of the study skills. (Reading Handbook, Pages 84-95.)

2.5(4) Each pupil should have a standard, elementary dictionary furnished either by his parents or the school. (Reading Handbook, Pages 169-176.) Several single copies of other texts and books to supplement history, geography, science, health, safety, etc.

Note: These books should have a spread of several grade levels in reading difficulty. Some books should be easier than the text for slower readers and some books of the expanded, more difficult type for the more capable readers.

2.5(5) Two sets of literary or recreatory-type readers.

One standard juvenile reference set.

Note: Selections should be made from the list recommended for elementary grades in the report of the special committee of the Iowa Library Association.

Recreational books should be equal to twice

the number of pupils enrolled as a minimum number of recent copies in good condition.

2.6(257) Other equipment for fourth grade.

2.6(1) A set of arithmetic flash cards (addition, subtraction, multiplication, and division).

2.6(2) A map of United States.

2.6(3) A geographic terms map.

2.6(4) A map of the world on an equal area projection.

2.6(5) A political-physical globe.

Note: The sixteen-inch (in diameter) globe is recommended because of its superior size and because of its added legibility.

2.7(257) Fifth grade.

2.7(1) A large map of North America.

2.7(2) A large map of the United States.

2.7(3) A large map of Iowa.

2.7(4) A bulletin board (Reading Handbook, Pages 126-127).

2.8(257) Sixth through eighth grades.

2.8(1) One standard Atlas.

2.8(2) One political-physical globe.

2.8(3) Large maps of Europe, Asia, Africa, South America, and the World.

2.8(4) Other desirable maps would be:

a. Blackboard outline maps, especially of the world and the United States.

b. Political map of the United States, showing states in separate colors, at least 38 inches by 48 inches.

c. Rainfall map and population density map of world, of the United States, of Europe.

2.8(5) Visual materials:

a. Film strip projector.

b. A 16 mm sound projector.

Note: The visual aids should be fitted to the curriculum and films should be obtained that meet the instructional plan.

2.8(6) Magazine list:

a. Please refer to Library Bulletin, Number 45, page 37.

DIVISION II

STANDARDS FOR THE HIGH SCHOOL

2.9(257) Condition of books. In evaluating a school with reference to the standards, credit will not be allowed for sample copies, books with ragged covers, supplementary readers having a copyright earlier than 1930, private books donated to the school, or books belonging to teachers. The covers of older books should be repaired or the books rebound if they are not in reasonably attractive condition. Worn-out sets and copies of obsolete books should be taken off the shelves to make room for more recent, attractive books.

2.10(257) Types of materials for library.

The high school library should include at least the following types of books:

- 2.10(1)** Encyclopedias.
- 2.10(2)** Single copies of recent textbooks to parallel and supplement the adopted text.
- 2.10(3)** Single copies of books for collateral reading, enrichment, and appreciation in the various subjects taught.
- 2.10(4)** Fiction, travel, biography, etc., for recreational reading.
- 2.10(5)** Dictionaries—abridged and unabridged.
- 2.10(6)** Atlas.
- 2.10(7)** Magazines and periodicals.
- 2.10(8)** Compilations and collections of source materials, including autobiographies, letters, memoirs, documents, etc.

2.11(257) Encyclopedias. It is recommended that two sets of encyclopedias be available in the high school: One of those recommended for first purchase for senior high school only on page 3 of the report of the special committee of the Iowa Library Association and one set recommended for secondary purchase for senior high school.

2.12(257) Parallel text and supplementary books.

2.12(1) Parallel texts. For each content subject taught in high school there should be some copies of recent parallel texts. Old, obsolete, ragged, useless books of the textbook type should be removed from the library and the classrooms.

2.12(2) Specialized books. There should also be books of a more expanded, specialized type than the textbooks. They may be of a semirecreational, biographical, historical or popular nature. Their chief purpose is to broaden the scope of the pupil's knowledge of topics or subjects, to fill in details, to familiarize the pupil with literature in fields of special interest, to develop an appreciation of this literature, and to cultivate a desire on the part of the student to spend more of his leisure time in worthwhile reading.

2.12(3) Lists of books. Suggested lists of books for some subjects in high school will be found on pages 67-99 of Library Bulletin Number 45. These lists were prepared by prominent classroom teachers in Iowa and are graded as to difficulty. They should be of assistance to superintendents and classroom teachers who wish to purchase supplementary enrichment books. Other books can be selected from bibliographies in Iowa courses of study, from recent textbooks, or from the single or double-starred books in the Standard Catalog for High School Libraries.

2.12(4) Number of books. The number of books of the types described above in the high school library or classrooms should be equal to the enrollment of the class, up to thirty copies for each subject.

2.13(257) Books for recreational reading.

2.13(1) Number and condition. The school should own a minimum of one hun-

dred titles of these types of books in usable, attractive condition. One book should be added for each pupil above one hundred. Books from the state traveling library are helpful, but the school should not depend upon this source alone. Additions and replacements should be made annually.

2.13(2) Types and interests. Books should have a wide spread of interest appeal and reading level. They should deal with the present interests of high school boys and girls. Many of them should be graded considerably below the high school reading level so that they will not be too difficult for the slower readers and will develop an interest in reading for leisure time enjoyment. (See lists and suggestions for selection of fiction given on page 32, Library Bulletin, Number 45.)

2.14(257) Dictionaries.

2.14(1) Unabridged. One recent edition of an unabridged dictionary of recognized standing should be available in the high school.

2.14(2) Abridged. It is recommended that copies of dictionaries of the secondary or collegiate type be available in the library, study hall, and classrooms, where they may be handy for ready reference.

2.15(257) Magazines and periodicals. In schools with an enrollment of one hundred pupils or less, there should be a least five carefully selected current magazines, appropriate for the various departments, and a daily newspaper. If the five magazines indicated in the report of the special committee of the Iowa Library Association are provided, the "Abridged Readers' Guide to Periodical Literature" can be secured for two dollars twenty-five cents per year. This will be of great service in providing classified subject references to current materials for the various classes. (See page 8 of report of Iowa Library Association Committee, Reference Books Recommended for First Purchase in Elementary Grades and High Schools of Iowa, for description, and addresses of publishers.)

[Filed prior to July 4, 1952]

CHAPTER 3
APPROVED SCHOOLS AND
SCHOOL DISTRICTS

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DIVISION II
DEFINITIONS

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3.7 Educational plant.

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DIVISION VIII
PROVISIONS FOR IN-SERVICE GROWTH
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3.9 In-service growth of professional staff.

DIVISION I
GENERAL STANDARDS

3.1(257) General standards. For purposes of these approval standards, the following general standards shall apply.

3.1(1) Educational units governed by standards. The following standards shall govern the approval of all schools and school districts operated by public school corporations and the approval of all schools operated under nonpublic auspices. "School" means: Nursery school, kindergarten, elementary school, junior high school, or high school that is operated in Iowa.

3.1(2) School board. Each nonpublic school shall be governed by an identifiable agency which shall exercise functions necessary for the effective operation of the school. As used herein the agency governing each school, public and nonpublic, shall be referred to by the word "board."

3.1(3) Application for approval. The board of any school or school district that is not on the approved list on the effective date of these standards and which seeks approval shall file an application for approval on or before the first day of October of the school year for which approval is desired.

3.1(4) Approved schools and school districts. Each school or school district on the list of approved schools on the effective date of these standards shall continue to be approved except in those instances, when by subsequent action of the state board of public instruction, it is removed from the approved list. Each such school or school district shall submit such annual reports that the state board of public instruction may request.

3.1(5) When nonapproved. A school or school district shall be considered as nonapproved on the day after the date it was removed from the approved list.

3.1(6) Innovative programs. School officials who wish to initiate responsible administrative, organizational, or program innovations that depart in pattern but not in substance from the standards outlined herein are encouraged to do so, provided that all statutory conditions of section 257.25 of the Code are met. A description of such innovations shall be filed with the state board of public instruction as they are put into operation. On the basis of information gained by the staff of the department of public instruction concern-

ing the success of such innovations, the state board of public instruction may, at its discretion, give approval of said innovations.

3.1(7) Provisional approval. The state board of public instruction, at its discretion, may extend provisional approval on a year-to-year basis to schools or school systems which currently are not meeting all the standards outlined herein but which are making satisfactory annual progress toward that goal, provided that all self-executing conditions of the approval-standards law have been met.

DIVISION II
DEFINITIONS

3.2(257) Definitions. For the purposes of these approval standards, the following definitions shall be used.

3.2(1) Nursery school. A nursery school shall be defined as a school which: (a) Provides a continuous program of educational activities in a suitable environment especially planned for three- and four-year-old children, who attend on a regular basis prior to kindergarten, provided that a child who reaches his fifth birthday during the school year shall be eligible to continue in nursery school until the close of that year; (b) meets all applicable standards of the state board of public instruction outlined herein; (c) adheres to all applicable standards of the Iowa state department of health; and (d) complies with all applicable standards of the Iowa state department of social welfare.

3.2(2) Kindergarten. A kindergarten is hereby defined as that part of an elementary school which provides a program of educational activities especially planned for developing the potentialities of children of school age who are past nursery-school age but who have not been enrolled in first grade.

3.2(3) Elementary school. The elementary school is hereby defined as consisting of a kindergarten, if operated, and grades one through eight or grades one through six when grades seven and eight are included in a secondary school as defined herein.

3.2(4) Junior high school. The junior high school is hereby defined as consisting of grades seven, eight, and nine, or grades seven and eight, when such grades are included in a unit that is separately organized and administered.

3.2(5) Four-year high school. The four-year high school is hereby defined as consisting of grades nine, ten, eleven, and twelve when such grades are included in a unit that is separately organized and administered.

3.2(6) Senior high school. The senior high school is hereby defined as consisting of grades ten, eleven, and twelve when such grades are included in a unit that is separately organized and administered.

3.2(7) Junior-senior high school. The junior-senior high school is hereby defined as consisting of grades seven, eight, nine, ten,

eleven, and twelve when such grades are included in a unit that is separately organized and administered.

3.2(8) Secondary school. The secondary school is hereby defined according to one of the following patterns: (a) A junior high school comprising grades seven, eight, and nine, and a senior high school; (b) a combined junior-senior high school comprising grades seven through twelve; (c) a junior high school comprising grades seven and eight, and a four-year high school comprising grades nine through twelve; or (d) a four-year high school comprising grades nine through twelve.

3.2(9) Enrolled public school pupil. A pupil shall be regarded as enrolled in a public school after he is registered and is taking part in that school's educational program.

3.2(10) Enrolled nonpublic school pupil. A pupil shall be regarded as enrolled in a nonpublic school after he is registered and is taking part in that school's educational program. A pupil who also attends a public school for specified courses not available to him in his private school, as provided by law, shall be entitled to transportation under the terms of and to the extent provided in the attorney general's opinion dated July 14, 1965, or such subsequent opinions as may be rendered on the subject.

3.2(11) School day. A school day shall be defined as the number of hours the school is actually in session in any one of its divisions. In order to be counted as a school day, a school must be in session a minimum of five and one-half hours for all grades above the third; four hours for grades one, two, and three, respectively; and two and one-quarter hours for both the kindergarten and the nursery school. These minimum hours shall be exclusive of the lunch period.

3.2(12) Day of school. A day of school shall be defined as a day that the school is in session and the pupils are under the guidance and instruction of the teachers. School shall be considered in session during field trips and excursions if pupils are engaged in school projects or activities under the guidance and direction of teachers.

3.2(13) Day of attendance. A day of attendance shall be a day during which a pupil was present, for at least the above-prescribed minimum number of hours, under the guidance and instruction of the teachers. When a nursery school or a kindergarten is limited to half-day sessions, each half-day session attended by a pupil shall count as a day of attendance. A day of more than the minimum number of hours may not be counted as more than one day. Pupils shall not be counted in attendance on a day when school was dismissed for an improvement-of-instruction institute or other educational meeting.

3.2(14) Aggregate days of attendance. Aggregate days of attendance shall mean the

sum of the days of attendance for all pupils who were enrolled during the school year.

3.2(15) Average daily attendance. Average daily attendance shall be defined as the average obtained by dividing the aggregate days of attendance for the school year by the total number of days school was legally in session. For example, if there had been one hundred seventy-nine days of school and school was dismissed one day for an improvement-of-instruction meeting, the average daily attendance would be computed by dividing the aggregate days of attendance for the one hundred seventy-nine-day period by one hundred seventy-nine.

3.2(16) Member. A pupil shall be considered a member of a class or a school from the date he is enrolled until the date he leaves the class or the school permanently. The date of the pupil's withdrawal shall be the date on which it became officially known that he had left that class or school, which will not necessarily be the first day after the date he last attended. Membership, on any date, may be obtained by adding the total number of enrollments to the total number of re-enrollments and subtracting therefrom the total number of withdrawals. Membership may also be obtained by adding the total number present to the total number absent. Membership means the number belonging.

3.2(17) Aggregate days of membership. Aggregate days of membership shall mean the sum of the days of attendance and the days of absence for all pupils who were enrolled during the school year.

3.2(18) Average daily membership. Average daily membership shall mean the aggregate days of membership divided by the number of days of school.

3.2(19) Pupils between seven and sixteen years of age. When reporting the number of pupils enrolled who are between the ages of seven and sixteen during the school year, a pupil shall be counted if any portion of the school year falls between his seventh and sixteenth birthdays.

3.2(20) High school dropout. For purposes of school approval, a high school dropout shall be a pupil who has been in membership in grade nine, ten, eleven, or twelve in a school at any time, during the twelve-month period from July 1 through the following June 30, who withdraws from such school for any reason other than those specified in section 257.27 of the Code, and who is not an enrolled member of that school during the ensuing twelve-month period.

A high school pupil shall be recorded as having transferred to another school if, within the twelve-month period cited herein, he has become enrolled in a recognized educational institution.

A high school pupil shall not be regarded as a dropout within the meaning of section

257.27 if, within the twelve-month period cited herein, he has been: (a) Issued a diploma in formal recognition of his successful completion of a high school program of instruction, or (b) issued either a certificate of attendance or of completion of a high school's program of instruction.

DIVISION III
ADMINISTRATION

3.3(257) Administration. The following standards shall apply to the administration of approved schools.

3.3(1) Board records. Each board shall adopt and maintain accurate records which shall provide for the recording of the minutes of all board meetings, coding of all receipts and expenditures, and the recording and filing of all reports. All public school boards shall maintain census records required by the appropriate sections of the Code and they shall retain copies of attendance reports on all children of compulsory school age who have attended nonpublic schools.

3.3(2) Report of nonpublic school instruction. Between September 1 and October 1 of each year the secretary of each public school board shall request from each nonpublic school located within the public school district a report of school instruction and attendance as required by section 299.3 of the Code. Each such nonpublic school shall submit the required duplicate report on forms prescribed by the state board of public instruction. One copy of this duplicate report shall constitute the report that the secretary of the public school board is legally required to file in the office of the county superintendent.

Each nonpublic school, between September 1 and October 1 of each year, shall send to each school district from which it receives pupils a list of the pupils of compulsory school age who are residents of that district and who are enrolled in that nonpublic school. The list shall include the name, grade, date of birth, name of parent or guardian, and location of residence.

3.3(3) Activity fund records. Accurate, complete, and up-to-date records of all pupil-activity funds shall be maintained according to a system approved by the state board of public instruction.

3.3(4) Audit of school funds. The results of the annual audit of all public school funds by a state auditor or a private auditing firm shall be made part of the official records of the board.

3.3(5) State aid for an improvement-of-instruction meeting. One day of state aid per pupil in average daily attendance shall be granted each year to each public school district that dismissed school a day for an improvement-of-instruction meeting called pursuant to chapter 272 of the Code. Two half-day meetings shall be regarded as equivalent to a one-day meeting.

3.3(6) Time loss adjustment. Time loss adjustment on general aid, for days lost, shall not be granted when the school term ends prior to May 30.

3.3(7) Minimum school year. The minimum length of the school year shall be one hundred eighty days. The one day or equivalent devoted to an improvement-of-instruction meeting shall be counted as one of the one hundred eighty days but the other one hundred seventy-nine days shall be days of school.

3.3(8) School system organizational structure. Each board that maintains a school system comprising both an elementary and a secondary school shall adopt and record in its minutes an elementary- and secondary-school organizational structure consistent with 3.2(3), 3.2(4), 3.2(5), 3.2(6), 3.2(7), and 3.2(8).

3.3(9) Elementary school organization. Each board that maintains a nonpublic elementary school only, shall adopt and record in its minutes an elementary school organizational structure consistent with 3.2(3).

3.3(10) Secondary school organization. Each board, maintaining a nonpublic secondary school only, shall adopt and record in its minutes a secondary school organizational structure consistent with 3.2(4), 3.2(5), 3.2(6), 3.2(7), and 3.2(8).

3.3(11) Records of certificates. The board shall require each administrator, supervisor, teacher, assistant teacher, teacher associate, and substitute teacher on its staff to supply evidence that he has registered with the county superintendent of schools a certificate which is in force and valid for the type of position in which he is employed. The minutes of the board shall show that this evidence has been supplied for each such person.

3.3(12) Records required regarding teacher assignment. The board shall require its superintendent or other designated administrative official to have on file at the beginning of and throughout each school year complete official transcripts of the preparation of all regularly employed members of the instructional professional staff. This official shall maintain for all members of said staff, including substitute teachers, a file consisting of copies of their legal certificates or copies of records made therefrom showing that they are legally eligible for the positions in which they are employed and that these certificates are registered in the office of the county superintendent of schools. The board shall also require said official to have on file for each member of the noninstructional professional staff a statement of professional recognition as defined in 3.4(2).

All members of the instructional professional staff shall teach only in those subjects, grades, or areas of special service in which they have met the personnel approval standards of the board of public instruction set out in the *Iowa Departmental Rules* and amendments thereto.

3.3(13) Pupil accounting system. Each board shall adopt and record in its minutes a system of pupil accounting that is consistent with the principles and procedures included in the state board of public instruction's handbook, *Pupil Accounting for Iowa Schools*.

3.3(14) Permanent office records and cumulative records of pupils. Each board shall require its administrative staff to establish and maintain an accurate and complete permanent office record for every enrolled pupil. This record shall be established immediately after a pupil enrolls. It shall be kept up to date; it shall be retained permanently; and it shall be stored in a fire-resistant safe or vault. A copy of this record shall be sent to the receiving school when a pupil transfers from one school or school system to another.

In addition to the permanent office record, the board shall require the instructional, guidance, and administrative personnel to establish and maintain a pupil's cumulative record. This record shall be a collection of pertinent data relating to the pupil which may be of assistance in counseling him. This record shall be established immediately after a pupil enrolls and it shall be kept up to date. It shall be made readily available to all professional staff members who have a direct concern for the pupil's welfare. It, minus certain personal information of a restricted nature which may have had value only to the school in which the pupil was enrolled, shall be sent to the officials of the receiving school when the pupil is transferred.

The permanent office record and the pupil's cumulative record shall be adequate in form and completeness when checked against the state board of public instruction's handbook, *Pupil Accounting for Iowa Schools*.

3.3(15) Record of dropouts. Each school shall prepare annually, in a manner prescribed by the state board of public instruction, a permanent office record of the number and percent of pupil dropouts for the preceding twelve months and this record shall clearly identify those pupils who are high school dropouts as defined in 3.2(20) and in section 257.27 of the Code.

3.3(16) Board's responsibility for establishing standards for high school graduation. Each board that operates a secondary school which extends through grade twelve shall formulate, and record in its minutes, policies, consistent with law and these standards, that pupils must meet to be eligible for high school graduation.

DIVISION IV SCHOOL PERSONNEL

3.4(257) School personnel. The following standards shall apply to the personnel employed in approved schools.

3.4(1) Instructional professional staff. Every person who holds a teacher's certificate endorsed for administering, supervising, teaching, or performing a special school service in

a school or school system shall be eligible for classification as a member of the instructional professional staff of the school or school system in which he is employed.

3.4(2) Noninstructional professional staff. Every person who holds a statement of professional recognition in one of the noninstructional areas listed in section 257.25, subsection 8, paragraph "b" of the Code, or in one of the other noninstructional professional areas designated by the state board of public instruction, shall be eligible for classification as a member of the noninstructional professional staff of the school or school system in which he is employed.

3.4(3) Basis for approval of professional staff. Each member of the professional staff shall be classified as either instructional or noninstructional. A professional staff member shall be regarded as approved when he holds either an appropriate certificate and an approval statement indicating the specific teaching assignments he may be given, or, alternatively, a statement of professional recognition for the specific type of noninstructional school professional service for which he is employed.

3.4(4) Substitute teacher. A substitute teacher is hereby defined as a person who serves in place of a regularly employed teacher who is absent from his position. A person who holds only a substitute teacher's certificate shall serve as a teacher a maximum of ninety days during one school year in place of a regularly employed teacher.

3.4(5) Assistant teacher. A person employed by a board to serve as a teacher under the guidance of a teacher holding a professional certificate shall be classified as an assistant teacher and, at the minimum, he shall hold a certificate that authorizes such service.

3.4(6) Teacher associate. A person employed by a board not to teach but to supervise pupils on a monitorial or service basis when not in the presence of a properly certificated teacher, shall be classified as a teacher associate, and shall hold a certificate that authorizes such service.

3.4(7) Teacher aide. A person who is authorized by a board to perform nonteaching assistance in supportive tasks which facilitate teaching, but who never teaches or supervises pupils, shall be classified as a member of the noncertificated personnel. Persons employed as teacher aides shall be at least sixteen years of age.

3.4(8) Required administrative personnel. Each board that operates a school system consisting of both elementary schools and secondary schools shall employ as its executive officer and chief administrator a person who holds a teacher's certificate endorsed for service as school superintendent.

3.4(9) Staffing policies — elementary schools. The board operating an elementary

school organized as defined in 3.2(3), or, alternatively, organized according to a plan submitted in accordance with the procedures described in 3.1(6), shall develop, adopt, and record in its minutes staffing policies designed to attract, hold, and effectively utilize competent professional personnel — instructional and noninstructional. Said policies shall include but not be limited to guidelines or criteria to be used in determining: (a) The scope and size of the staff; (b) the school or system-wide average class enrollment per teacher; (c) the maximum class enrollment per teacher; (d) extra-class duties; (e) time for planning and parent-teacher communications; (f) the employment of substitute teachers, assistant teachers, teacher associates, and teacher aides; (g) salaries and salary schedules, and (h) participation by members of the professional staff in the formation of school policies.

When grades seven and eight are a part of an organized and administered junior high school, the staffing policies adopted by the board for secondary schools shall apply.

3.4(10) Staffing policies — secondary schools. The board operating a secondary school organized according to one of the four patterns defined in 3.2(8), or, alternatively, organized according to a plan submitted in accordance with the procedures described in 3.1(6), shall develop, adopt, and record in its minutes staffing policies designed to attract, hold, and effectively utilize competent professional personnel—instructional and noninstructional. Said policies shall include but not be limited to guidelines or criteria to be used in determining: (a) The scope and size of the staff needed to provide each class with an instructor who is approved to teach each course in which pupils are enrolled, and to provide the nonclass services mandated by section 257.25(6)“a”, “b”, and “c” of the Code; (b) the maximum pupil enrollment in each class; (c) the total number of classes including the number of different classes for which separate or special preparations must be made; (d) the assignment of nonteaching duties such as study hall monitoring and supervision of pupil activities; (e) the employment of substitute teachers, assistant teachers, teacher associates, and teacher aides; (f) salaries and salary schedules; and (g) participation by members of the professional staff in the formation of school policies.

3.4(11) Nursery school staff. The staff of a nursery school shall consist of one teacher, one assistant teacher, and either one teacher associate or teacher aide for each fifteen children or major fraction thereof, provided that no nursery school staff shall be assigned more than two groups of children.

3.4(12) Provision for nursery school health supervision. Each nursery school shall have health supervision, on at least a part-time basis, by a physician or by a person who has an Iowa license as a registered professional nurse.

3.4(13) Annual check for tuberculosis. All persons employed in approved schools shall be required to undergo an annual check for tuberculosis and file the results with the board.

3.4(14) Physical examinations. Except as otherwise provided in rules of this department, the board shall require each employee to file with it, at the beginning of his service and at three-year intervals thereafter, a written medical report of a physical examination by the licensed physician who has performed said examination.

DIVISION V

EDUCATIONAL PROGRAM

3.5(257) Educational program. The following standards shall apply to the educational program of approved schools.

3.5(1) Curriculum defined. The word curriculum is hereby defined as including all pupil experiences that take place under the guidance of the school. It shall be used to describe the school-connected learning experiences of any pupil and also to indicate the arrangement of a group of courses to be taken by groups of pupils having a common objective.

3.5(2) Educational program defined. The educational program is hereby defined as including the entire offering of the school, including the out-of-class activities, and the arrangement or sequence of subjects and activities. It may be referred to as the program of studies and activities.

3.5(3) Educational program—form and content. The educational program, as adopted by each board, shall set forth the administrative measures and the sequence of learning situations through which attempts are made to provide pupils with well-articulated, developmental learning experiences from the date of school entrance until high school graduation.

3.5(4) Educational program—description and filing. The board shall require its administrators and professional staff to develop and furnish a description of the total elementary- and secondary-school educational program that the board is willing to approve. This description, after having been adopted by the board, and all subsequent revisions thereof shall be filed with the state department of public instruction as evidence of compliance with the provisions of law as itemized below.

The description of the elementary school educational program shall be in sequential order and shall explain the manner in which pupils are served in each of the areas of instruction specified in chapters 257 and 280 of the Code.

The description of the educational program for any separately organized and administered junior high school shall be in sequential order and shall explain the manner in which pupils are served in each of the areas of instruction specified in chapters 257 and 280 of the Code.

The description of the secondary school educational program, excepting that part which is separately organized and administered as a junior high school, shall be in sequential order and shall explain how the pupils are served in each of the subjects and services specified in chapters 257, 280, 321 (section 321.177) of the Code, provided that the description adopted by the board of a nonpublic school may omit any reference to driver education.

3.5(5) Provision for special education services. The board maintaining a junior and a senior high school, a junior or a senior high school, or a combined junior-senior high school shall adopt and record in its minutes a plan which makes the provision for special education services required by section 257.25 of the Code. The required services shall be those defined in the rules and regulations of the state board of public instruction implementing chapter 281 of the Code, and shall be designed for handicapped pupils as defined therein. This plan shall be filed with the state department of public instruction as evidence of compliance with the approval-standards law.

3.5(6) Instructional guide for each subject. Classroom instruction in each subject taught in the schools shall be based on careful planning. The resource guide, developed for each instructional sequence, shall include a statement of its educational purposes; suggested instructional activities, materials, and content; and a description of the means of evaluating each pupil's progress during the educational sequence.

3.5(7) Subject offering. A school shall be judged as offering a subject when: (a) The teacher of the subject has met the personnel approval standards of the state board of public instruction for that subject; (b) instructional materials and facilities for that subject have been provided; and (c) pupils have been informed, on the basis of their individual aptitudes, interests, and abilities, about the possible value of the subject for them.

A subject that the law requires to be taught annually shall be regarded only when, during each year, pupils enroll in it and are instructed in it in accordance with all applicable standards outlined herein. Subjects which the law requires schools to offer and teach shall be made available during the school day in session as defined in 3.2(11) and 3.2(12) herein.

3.5(8) Unit of credit. A unit of credit is hereby defined as that amount of credit earned by a pupil who successfully completes a course that is either pursued for 36 weeks for the required number of minutes per week as specified by the state board of public instruction or as an equated requirement as part of an innovative program properly described and filed with the state board of public instruction as prescribed in 3.1(6) herein. A fractional unit of credit shall be awarded in a manner consistent with this standard.

In order for a course not specifically designated as a laboratory course to yield one unit

of credit, the course must either be pursued for 36 weeks for at least 200 minutes per week or for the equivalent of 120 hours of instruction.

In order for a course specifically designated as a laboratory course to yield one unit of credit, the course must either be pursued for 36 weeks for at least 275 minutes per week or for the equivalent of 165 hours of instruction.

3.5(9) Organization of daily and weekly schedule. Daily and weekly schedules shall be organized by school officials in a manner which, in their judgment, best fits the conditions within their schools. Instructional innovations—such as team teaching, provisions for individual students, and modular scheduling—which require variable lengths of time and other instructional arrangements shall be permitted provided such arrangements are described and filed with the state board of public instruction in accordance with 3.1(6).

Each course taught shall, to some degree, incorporate a laboratory approach to learning. Courses in which one-third or more of the instruction time is laboratory based, and such other courses as the state board of public instruction may designate, shall be considered laboratory courses in order to yield one unit of credit.

3.5(10) Program of testing and evaluation. The board shall require its administrators and professional staff to develop and present to it for approval a long-range program of systematic, periodic testing and evaluation of all pupils enrolled.

This program of testing and evaluation, which shall be co-ordinated throughout all elementary- and secondary-school grades, shall include the use of comparable tests that have yielded stabilized and consistent year-to-year data about pupils' development in relation to specified educational objectives. The school staff shall show how teacher-made tests, observational records, and informal (and largely subjective) appraisals of pupils' development fit into this program. The minutes of the board shall show that this program has been adopted.

Individual psychological examinations of pupils shall be administered by a person holding a teacher's certificate endorsed for service as a school psychologist or by a person who has been approved by the state department of public instruction as competent specifically in the administration of individual psychological examinations.

3.5(11) Evaluation of educational program. School officials shall, year-by-year, systematically evaluate their educational program to determine its effectiveness and its adequacy in terms of its scope. In making this evaluation, school officials shall: (a) Use techniques such as conducting follow-up studies of graduates, preparing pupil dropout studies, and identifying over- and under-achievers; and (b) take into consideration the comments and

recommendations of pupils, parents, and professional staff members obtained through surveys, discussion groups, conferences, and questionnaires.

3.5(12) Parent-teacher communications. School officials in every school shall provide for parent-teacher communications to improve the pupil-home-school relationship, and to meet more effectively each individual pupil's needs.

3.5(13) Guidance program in secondary schools. Every board that operates a junior high school, a combined junior-senior high school, or a senior high school shall provide therein an organized and functioning guidance program to aid pupils with their personal, educational, and vocational planning and problems. The guidance program shall be staffed with guidance counselors who have met the professional standards established by the state board of public instruction for such personnel. Their number, as specified in chapter 257, of the Code, and their manner of use shall be set out in the minutes of the board.

Guidance counselors shall be provided adequate space, facilities, and materials, and they shall be allotted time on the program schedule for performing guidance services. Individual and group conferences with pupils, parents, and professional staff members shall also be provided for in the guidance program.

3.5(14) Guidance services in elementary schools. Effective September 1, 1970, the board shall institute a program of guidance services for its elementary schools. Each pupil shall have access to the minimum amount of guidance service specified by the board and recorded in its minutes.

3.5(15) Nursery school program. Each board that operates a nursery school shall require its professional staff to develop an educational program that meets the conditions for nursery school activities as specified in chapter 257 of the Code. This program and all subsequent revisions thereof, when adopted by the board, shall be recorded in its minutes.

3.5(16) Kindergarten program. Each board that operates a kindergarten shall require its professional staff to develop, subject to official adoption by said board, an educational program that meets the conditions for kindergarten activities as specified in chapter 257 of the Code. This program and all subsequent revisions thereof, when adopted by the board, shall be recorded in its minutes.

3.5(17) Instructional supplies. Instructional supplies are hereby defined as items that are used in the teaching-learning process and that are usually consumed in less than five years. In determining how to classify borderline items as instructional supplies rather than as instructional materials or equipment, the financial accounting and the educational plant and facilities handbooks published by the state board of public instruction shall be used as guidelines.

3.5(18) Instructional supplies required. Each board shall provide each school with instructional supplies sufficient for each subject and each supporting service offered in the school. Handbooks published by the state board of public instruction which relate to each subject and supporting service shall be used as guidelines.

3.5(19) Instructional materials and equipment. Instructional materials and equipment are hereby defined to mean science apparatus, laboratory tables and demonstration desks; shop tools and machinery; gymnasium equipment and apparatus; equipment for business education, art, industrial arts, and music rooms; audio-visual aids equipment; equipment needed in rooms designed especially for each subject taught (such as English and language arts, foreign languages, mathematics, sciences, social studies, and vocational subjects); maps, atlases, and charts; library books and periodicals; encyclopedias and reference books; and the like.

3.5(20) Instructional materials and equipment required. Each board shall provide each school with instructional materials and equipment that are adequate to meet the needs for all courses, activities, and services. Handbooks published by the state board of public instruction relating to each subject and supporting service shall be used as guidelines.

3.5(21) Elementary school library materials. Centralized library materials shall be provided in each elementary school system, even though at any given time the bulk of the collection of books and other types of learning materials is actually housed in classrooms. Items such as books, pictures, maps, charts, audio-visual equipment with appropriate slides, films, filmstrips and sound recordings, and museum items shall be included as parts of said materials. The entire collection shall be cataloged and classified according to the Dewey decimal or comparable system and made accessible to teachers and pupils alike. An area shall be provided in each elementary school attendance center for the preparation of learning and instructional materials.

DIVISION VI

ACTIVITY PROGRAM

3.6(257) Activity program. The following standards shall apply to the activity program of approved schools.

3.6(1) Pupil activity programs—general guidelines. Each school or school system shall have a pupil activity program sufficiently broad and balanced to offer opportunities for all pupils to participate. The activity program shall be co-operatively planned by pupils and teachers, shall be supervised by qualified school personnel, and shall be designed to: (a) Meet the needs and challenge the interests and abilities of all pupils consistent with their individual stages of development; (b) contribute to the physical, mental, aesthetic, civic,

social, moral, emotional, and spiritual growth of all pupils; (c) offer opportunities for both individual and group activities; (d) be integrated with the instructional program; (e) provide balance whereby a limited number of activities will not be perpetuated at the expense of others; (f) be controlled to a degree that interscholastic activities do not unreasonably interfere with the regularly scheduled daily program, and (g) furnish guidance to pupils to insure that they regulate the amount of time they participate in the activity program so that they will not jeopardize benefits they might receive from other aspects of the school program.

The school shall make reasonable efforts to provide and maintain adequate facilities and equipment to develop and encourage a broad activities program.

3.6(2) Pupil activity program in elementary schools. Elementary schools shall have a broad and balanced pupil activity program, closely integrated with the instructional program, and designed to help pupils achieve maximum personal development. The program shall provide opportunities for pupils to participate in a variety of physical activities, in arts and crafts, music, creative dramatics, homeroom and citizenship projects, class projects, hobby pursuits, and other activities the school may provide.

3.6(3) Interscholastic sports activities in elementary school. Elementary schools comprised of kindergarten and grades one through six, shall not participate in, encourage, promote, or sponsor interscholastic sports activities.

3.6(4) Supervised intramural sports. Supervised intramural sports activities shall be encouraged in grades seven, eight, and nine.

Two levels of priority shall be considered in this standard: First, the school or school system shall provide professionally qualified personnel, space and facilities, equipment and supplies, and a broad program of basic instruction in physical education, based upon individual and group needs of all pupils; second, the school or school system shall sponsor a broad and varied, voluntary program of intramural sports activities for all pupils in grades seven, eight, and nine.

3.6(5) Pupil activity program in junior high schools. The junior high school shall have a broad and balanced pupil activities program closely integrated with the instructional program, designed to help pupils achieve maximum personal development. In addition, opportunities shall be provided in the areas of clubs, intramural athletics, music groups, supervised social activities, student government embodying the principles of democracy, and other activities to meet the increasing range of interests, abilities, and aptitudes of junior high pupils.

3.6(6) Pupil activity program in senior high schools. The senior high school shall have a pupil activity program based on mutual

as well as individual needs, interests, abilities, and enthusiasms. The program shall be organized and administered in such a manner that broad and varied experiences which contribute to the enrichment of the total educational program will be available. Opportunities shall be provided in the following areas: (a) Physical activities and athletics, including intramurals; (b) speech activities and dramatics; (c) vocal and instrumental music; (d) student council organization embodying democratic principles; (e) journalism; (f) clubs and social activities; (g) class activities; (h) assemblies; and (i) other areas as may be developed under adequate school supervision.

3.6(7) Balanced activity program required. The activity program in the senior high school in specific areas shall not be over-emphasized to the extent that other worthwhile and constructive activities are unduly weakened or eliminated.

DIVISION VII

EDUCATIONAL PLANT

3.7(257) Educational plant. The following standards shall apply to the educational plant of approved schools or school systems.

3.7(1) Educational plant defined. The educational plant of a school or school system is hereby defined as the site, buildings, and equipment that constitute the physical facilities.

3.7(2) Educational plant requirements. The educational plant shall be adequate to support all of the courses, activities, and services offered by each school.

3.7(3) Safe buildings and grounds required. Every school building shall be safe. The buildings and grounds shall be so maintained as to provide a safe and healthful environment.

3.8 Reserved for future use.

DIVISION VIII

PROVISIONS FOR IN-SERVICE GROWTH OF PROFESSIONAL STAFF

3.9(257) In-service growth of professional staff. The following standards shall apply to the provisions for the in-service growth of the professional staff.

3.9(1) Budget for in-service growth. The board—in recognition of the high importance of the teacher in the establishment and maintenance of an optimal learning environment for pupils—shall make provision in its budget for the support of a planned, comprehensive program for the in-service growth of its professional staff—instructional and noninstructional.

3.9(2) Professional library. The board shall establish and maintain a professional library-instructional materials center for use by its professional staff. The budget shall provide for annual expenditures to make planned additions to the equipment, supplies, and pro-

professional books, magazines, and instructional print and nonprint materials essential to the work and professional growth of the staff.

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TITLE III

AREA VOCATIONAL SCHOOLS, JUNIOR AND COMMUNITY COLLEGES

CHAPTER 4

APPROVAL OF PUBLIC JUNIOR OR COMMUNITY COLLEGES

- 4.1 Definitions.
- 4.2 Superintendent.
- 4.3 Dean—powers and duties.
- 4.4 Financial records and reports.
- 4.5 Minimum enrollment.
- 4.6 Academic records and transcripts.
- 4.7 Catalog and announcements.
- 4.8 Admission requirements.
- 4.9 High school students.
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- 4.27 Work standards and student load.
- 4.28 Library.
- 4.29 Equipment, laboratories, and supplies.
- 4.30 Physical plant.
- 4.31 Student personnel.

4.1(286A) Definitions. For the purposes of these approval standards, the following definitions shall be used.

4.1(1) A *junior or community college* is a collegiate institution offering (a) Not to exceed two years of work beyond the secondary school in college courses, (b) programs of two years or less of other post high school courses, or (c) courses not normally accepted towards a bachelor's degree.

A public junior or community college is a local tax-supported institution under the jurisdiction of the local board of education, whose primary purpose is to provide for the educational needs of the community it serves. It must meet the needs of students who plan to continue their education in a senior college or the needs of those who wish to increase their knowledge or skills in special areas.

4.1(2) *Accreditation* is a process of granting approval to a collegiate institution which results in the acceptance of its credits by other

collegiate institutions. It may carry with it other advantages such as the right to receive financial aid.

Regional accreditation in the midwest is by the North Central Association of Colleges and Secondary Schools. Junior colleges shall work toward meeting these regional standards and in a reasonable time be expected to apply for and gain accreditation by the North Central Association.

State accreditation in Iowa is provided through standards adopted jointly by the state board of public instruction and state board of regents. State accreditation is required in order that credits for a junior college be accepted by the three Iowa public senior institutions of higher learning. It is also required if a junior college is to receive state financial aid.

4.1(3) Terms—junior or community college. For the purpose of these regulations, the words "junior" and "community" shall be considered the same.

4.2(286A) Superintendent. The superintendent of schools in the local district shall be the chief administrative officer of the junior college. He shall delegate to the dean all necessary administrative and supervisory responsibilities to insure an efficient college operation.

4.3(286A) Dean—powers and duties.

4.3(1) The dean shall be responsible for the operation of the college:

- a. Its educational program.
- b. Its faculty and student personnel programs.
- c. The use of facilities assigned to it. (If operated in the same building as a high school this responsibility shall be co-ordinate with that of the principal of the high school.)
- d. The dean may not serve as principal of a high school.

4.3(2) In colleges enrolling two hundred or more students carrying twelve semester hours or more in average daily enrollment, the dean shall devote full time to junior college administrative and supervisory duties. If the college has additional administrative officers having time set aside for administrative duties, the dean shall not devote more than forty percent of his time to teaching or guidance.

4.3(3) In colleges enrolling less than two hundred full-time students carrying twelve semester hours or more in average daily enrollment, the dean shall devote at least fifty percent of his time to administrative duties.

4.4(286A) Financial records and reports. The public junior college shall, as a condition for eligibility for state aid, maintain accurate financial records and make reports in the form prescribed by the state department of public instruction. Such records must show all costs of operation and reasonable share of costs for shared facilities or personnel. It shall neither bear the financial burden of other

school units nor have its costs borne by other units.

4.5(286A) Minimum enrollment. A junior college shall be considered to have an adequate minimum enrollment to receive state aid if it satisfies the following criteria:

4.5(1) It is able to provide adequate classes of reasonable economic size as needed by the students of the district.

4.5(2) It meets the needs of the students of the local area in terms of available curricula as evidenced by periodic surveys.

4.5(3) It shows over the preceding five years by its enrollment that it has stability.

4.6(286A) Academic records and transcripts. The junior college shall maintain an adequate personnel record for each student which shall show clearly a summary of the secondary school record and the college work for each session attended. The junior college shall retain the original college transcripts for students who transfer from another college. The junior college shall issue official transcripts which may be photo copies of the permanent record and which shall contain the signature of the Dean or the Registrar and the imprint of the college seal. The transcript or the accompanying sheet of information shall provide as a minimum the items enumerated in the publication "An Adequate Transcript Guide" issued by the American Association of Collegiate Registrars and Admissions Officers.

4.7(286A) Catalog and announcements. The catalog of the junior college shall be the official publication of the college. The catalog shall present factual information on courses offered, available curricula, staff data, college rules and regulations, cost information, philosophy and objectives of the institution and other information of a general nature. A catalog shall be published at least every other year. In general, material of an advertising or publicity nature shall be published separately from the catalog.

4.8(286A) Admission requirements. The standard minimum requirements for admission to a junior college shall be graduation from an approved high school, or its equivalent. The junior college shall have the right to either establish admission requirements that are higher than this basic policy or to waive the basic admission requirements for students who will be taking only courses not leading to a baccalaureate degree. The method of determining the equivalence of a high school diploma shall be consistent with the practices followed by the three state institutions for higher education in Iowa.

4.9(286A) High school students. If the standard college course work offered by a junior college is of college level, most high school students will not be qualified for college level courses until after high school graduation. The faculty of a junior college may establish, however, standards under which

high school seniors of special ability may take college course work for credit if the student has been registered for sufficient high school units to complete the requirements for graduation. The standards established by the faculty shall be filed with and approved by the department of public instruction.

4.10(286A) Academic year and class periods. The academic year of a junior college shall provide for a minimum of thirty-four weeks of instruction. Each recitation or lecture section shall be at least fifty minutes in length.

4.11(286A) Extra sessions restricted. As a general principle, Iowa public junior colleges shall not hold summer schools or offer classes meeting only on Saturdays. If under special conditions a departure from this principle seems justified, special permission must be secured from the state department of public instruction. If permission is granted, the same standards shall be used as for regular classes and in the case of Saturday classes they will be counted as a part of the instructor's regular weekly load.

Evening classes are a standard part of a junior college program and must be counted as a part of an instructor's load if he also teaches regular daytime classes. Normally regular day college students will not take evening classes.

4.12(286A) Credit towards a degree. Not more than one-half of the collegiate requirements for a baccalaureate degree from a state institution for higher learning may be satisfied by credit earned in a junior college.

4.13(286A) Graduation requirements. A minimum of sixty semester hours of junior college credit exclusive of required courses in physical education and military science shall be required for graduation from a junior college. The diploma granted for completion of a junior college curriculum may be called an Associate in Arts, an Associate in Science, or an Associate degree of another designation. Documents of a lesser status may also be awarded for graduation.

No student shall be certified for graduation from a junior college who has not earned an over-all grade point ratio of 1.80 or above. Grade points shall be awarded as follows: A—4, B—3, C—2, D—1, F—0.

4.14(286A) High school accreditation. A public junior college shall not be eligible to be approved unless the high school or high schools operated by the same district are accredited by the North Central Association.

4.15(286A) Faculty.

4.15(1) Instructor qualifications. Junior college instructors must hold certificates issued by the board of public instruction which are valid for teaching in grades thirteen and fourteen.

Junior college instructors shall either have had collegiate preparation in junior college

philosophy and teaching methods, and in counseling and guidance at the college level; or shall secure such preparation through participation in an approved in-service program.

4.15(2) General requirements. The instructor shall hold a master's degree from a recognized graduate school with a graduate major in his principal field of instruction and at least fifteen semester hours of graduate credit in any other field taught.

4.16(286A) Art instructor requirements. The instructor in art shall hold a master's degree with a major in art from a recognized graduate school; or, in lieu thereof, a certificate endorsed specifically for the teaching of art.

4.17(286A) Qualifications for librarians. A person serving as librarian for half-time or less shall have completed twenty semester hours of preparation in library science; or, in lieu thereof, said person shall hold a certificate endorsed for service as a school librarian; a person serving as librarian for more than half-time shall have completed fifteen hours of graduate credit in library science, and said person shall hold a certificate endorsed for service as a school librarian.

4.18(286A) Music instructor. The instructor in music shall hold a master's degree with a major in music from a recognized graduate school; or, in lieu thereof, a certificate endorsed specifically for the teaching of music.

4.19(286A) Physical education instructor. The instructor in physical education shall hold a master's degree with a major in physical education from a recognized graduate school; or, in lieu thereof, a certificate endorsed specifically for the teaching of physical education.

4.20(286A) Accounting instructor. The instructor in accounting shall hold a master's degree from a recognized graduate school with fifteen semester hours of credit in accounting of which at least three semester hours shall be graduate credit.

4.21(286A) Instructors in nontransfer courses. The instructor in any course which is not usually included in programs leading to the bachelor's degree in accredited colleges and universities shall have had appropriate preparation or competence for each such course taught as determined by the official in the department of public instruction who supervises junior colleges.

4.22(286A) Drawing instructor. The instructor in engineering drawing shall hold a bachelor's degree from a recognized collegiate institution with at least eight semester hours of credit in engineering drawing of the type required in a basic curriculum in engineering.

4.23(286A) Typing and shorthand instructor. The instructor in shorthand and type-writing shall hold a master's degree from a recognized graduate school with either a graduate or an undergraduate major in the

field of business or commerce, and with not less than five semester hours of graduate or undergraduate credit in each of these subjects.

4.24(286A) Instructor workload. The load of an instructor in a junior college shall not exceed sixteen semester credit hours. All junior college administrators shall use the following uniform method of computing the teaching load:

4.24(1) Junior college nonlaboratory courses shall carry the same number of semester credit hours as are given in the course.

4.24(2) Junior college laboratory classes, extracurricular supervision, and administrative duties shall be weighted .70 per clock hour.

4.24(3) High school classes shall be weighted .70 per class period.

4.24(4) High school extracurricular supervision and administrative duties shall be weighted .50 per clock hour.

4.24(5) Adult education teaching assignments shall constitute a part of the twenty-six semester hour load and shall be weighted at .70 per clock hour of instruction except when carrying semester hours of college credit in which case items 1 and 2 will apply.

4.25(286A) Faculty organization. The faculty shall be regularly organized and meet regularly for the purpose of study and development of the curriculum, improvement of instruction, development of general policy and such other matters as are appropriate to a college faculty. It is essential that the organized faculty have definite responsibility in the operation of the college.

4.26(286A) Curriculum. A junior college shall provide college courses in English, mathematics, the physical or natural sciences, the social sciences, and the humanities. Foreign language, business and other college courses may be offered in accordance with local needs where the community is able to supply the necessary equipment and qualified teacher or teachers.

On the basis of determined community or area needs, junior colleges may offer courses which are basically technological, service, or vocational in nature. These courses may differ in content, purpose, and length from college courses. Differences that do exist shall be noted in the official publications of the junior college. Junior colleges making such offerings shall comply with the requirements for each course in terms of teacher competency and instructional materials which the appropriate state supervising agency of the junior colleges shall establish from time to time.

4.27(286A) Work standards and student load. Each course which is offered for college credit in a junior college shall be taught at a standard consistent with the quantity and quality of similar courses offered in accredited senior colleges.

A normal full-time student-load shall be six-

teen semester hours. Extra work may be taken by superior students with faculty approval but under no circumstances shall any student be permitted to register for more than twenty semester hours of work.

4.28(286A) Library. In evaluating a junior college library, for purposes of approval hereunder, consideration shall be given to the following specific recommendations:

4.28(1) Organization and administration. The library shall be adequately housed and professionally administered with books well distributed. An appropriate reading room, separate from the high school library if possible, should be open to all students throughout the day. Adequate seating space (recommended to seat twenty percent of the student body) shall be provided.

4.28(2) Adequacy of materials. The library shall contain adequate basic general reference books, and appropriate current periodicals in sufficient variety for each department in which instruction is given.

4.28(3) Annual appropriation. In each junior college there shall be an annual appropriation for the purchase of new books, exclusive of government documents and periodicals, of not less than one thousand dollars or ten dollars per student, whichever is greater.

4.28(4) Cataloging. Books must be properly cataloged.

4.28(5) Co-ordination with other library facilities. In no case shall the junior college depend upon the city library for any large share of materials or facilities unless it is close enough for students to use it for study during the school day and unless the junior college has adequate control over the books purchased and their use.

4.28(6) Use by students and staff. Both students and staff members shall have free access to all library facilities.

4.29(286A) Equipment, laboratories and supplies. The junior college shall provide adequate equipment, laboratories and supplies in relation to the courses offered. Annual budgetary provision shall be adequate to keep instructional material, equipment and facilities up-to-date.

4.30(286A) Physical plant. The location, buildings, and equipment of a junior college shall be well maintained and in good repair. They shall be clean, orderly and in good hygienic condition. A consistent plan of systematic maintenance shall be in evidence.

The physical plant shall be adequate in size and properly equipped for the program offered by the college. If space is shared with a high school, there shall be sufficient separation of rooms assigned to permit the development of a college atmosphere. Office space for the junior college shall be separate from the high school office.

4.31(286A) Student personnel.

4.31(1) Extracurricular activities. The junior college shall provide sufficient extra-

curricular activities to afford its students with an opportunity for the development of leadership and initiative. All extracurricular activities of the college must be under the direct supervision of qualified members of the junior college faculty.

4.31(2) Counseling and guidance. A junior college shall provide guidance services which serve all students enrolled and which utilize the aid of staff members, school facilities and community agencies. These services should include curriculum planning, student counseling, standardized testing, collection of student personal data, job placement and follow-up studies.

The guidance services shall be directed by a staff member specially prepared and qualified. Allotments shall be made of time, space and funds which are adequate for a comprehensive guidance program for the college.

[Filed April 24, 1959]

CHAPTER 5

AREA VOCATIONAL SCHOOLS AND COMMUNITY COLLEGES

- 5.1 Form and content of notice of intent.
- 5.2 Definitions.
- 5.3 Administration.
- 5.4 Faculty.
- 5.5 Curriculum.
- 5.6 Community services.
- 5.7 Standards of work and student load.
- 5.8 Library.
- 5.9 Laboratories, shops, equipment and supplies.
- 5.10 Physical plant.
- 5.11 Student personnel services.
- 5.12 Approval procedures.
- 5.13 Standards for area vocational schools.
- 5.14 Tuition rates.
- 5.15 Attendance outside resident area.
- 5.16 Building site—size.
- 5.17 Building plans.
- 5.18 Preliminary planning.
- 5.19 Other governmental approval.
- 5.20 Parking lots.
- 5.21 Flexibility and expansion.
- 5.22 Physically handicapped.
- 5.23 Adequate facilities.
- 5.24 Air-conditioning.
- 5.25 Library.
- 5.26 Commons.
- 5.27 Permanent facilities.
- 5.28 Nonacceptable facilities.

5.1(280A) Form and content of notice of intent. The form and content of the notice of intent to form the proposed merged area, required by statute to be published by each county board of education which is a planning board, within thirty calendar days after approval by the state board of public instruction of the plan for such area, are hereby prescribed to be substantially as follows:

NOTICE OF INTENT TO FORM A PROPOSED MERGED AREA

Pursuant to Section 280A.10, subsection 1, Code of Iowa notice is hereby given by the County Board of Education, a planning board within the meaning of said section, that the State Board of Public Instruction met on the ... day of ..., 19..., and approved a proposed plan for the purpose of establishing an area ...

(Here insert vocational school" or "community college") said area as merged area (Education) ... at ... (Here insert post-office address of administrative office) area to include all of the territory in the school systems of ... (Here name county school systems included in their entirety.) and ... (Here describe included territory in county school systems, if any, not included in their entirety.) county school systems or designated parts thereof existed on the ... day of ..., 19...; and designated the location or locations of said area vocational school (or community college) as ...

(Here specify the officially-designated location or locations.) districts in said proposed merged area as continuous with the territorial boundaries of ... (Here describe director districts in terms of boundaries of existing county school systems or local districts.) which a governing and tax-certifying board of directors for said merged area, composed of one director elected from each director district, will be elected upon final approval by said planning board of the proposal to form said merged area.

Notice is further given that the purpose for formation of the said proposed area is to offer to residents of said proposed area, to the greatest extent possible, educational opportunities and services as follows: (Here insert such of the following services applicable to the proposal.)

- 1. The first two years of college work including preprofessional education.
2. Vocational and technical training.
3. Programs for in-service training and retraining of workers.
4. Programs for high school completion for students of post-high school age.
5. Programs for all students of high school age who may best serve themselves by enrolling for vocational and technical training while also enrolled in a local high school public or private.
6. Student personnel services.
7. Community services.
8. Vocational education for persons who have academic, socio-economic, or other handicaps which prevent succeeding in regular vocational educational education programs.

9. Training, retraining, and all necessary preparation for productive employment of all citizens.

Notice is further given that the county board of education of ... county (Here insert name of county.)

hereby expresses its intent to act with the several county boards of education having jurisdiction of the territory hereinabove described in the formation of the merged (education) area hereinabove described.

Dated at ..., this ... day of ..., 19....

President, ... County Board of Education

County Superintendent of Schools [Rules 5.2(280A) to 5.13(280A), inclusive, were filed as joint rules with the Board of Regents and the Board of Public Instruction.]

5.2(280A) Definitions. For purposes of these approval standards, the following definitions shall be used.

5.2(1) Accreditation. Accreditation is the process of granting approval to an institution to indicate that such institution has met the minimum requirements of excellence for an institution of its type.

5.2(2) Area community college. An area community college shall satisfy the definition of both an "area vocational school" and an "area community college" as set forth in sections 280A.1 and 280A.2 of the Code.

5.3(280A) Administration.

5.3(1) Superintendent. The superintendent, who shall be the holder of a teacher's certificate authorizing service as superintendent of an area vocational school or area community college, shall be the chief administrative officer of the area community college operated under the jurisdiction of a merged area board, and he shall be the executive officer of that board. The superintendent shall be responsible for the operation of the area community college with respect to its educational program, its faculty and student personnel programs, and the use of its facilities. He shall delegate to the directors all necessary administrative and supervisory responsibilities to insure an efficient operation of the institution.

5.3(2) Administrative assistant. The administrative assistant shall be responsible to the superintendent for projects and duties assigned.

5.3(3) Business manager. The business manager shall perform the functions of financial accounting, record keeping, and reporting, and he shall implement decisions of the administration relative to budgeting. In addition, he shall be responsible for inventory keeping, equipment and plant maintenance, operation of plant, and operation of services such as food service and bookstore.

5.3(4) Director. A director, who shall be the holder of a teacher's certificate authoriz-

ing service in the administrative position of director of a division of an area community college or of a separate attendance area, shall be administratively responsible to the superintendent.

5.3(5) Chairman or department head. A chairman or department head is a person who holds a teacher's certificate authorizing service as community college or vocational school instructor and who heads a department of instruction within a division.

5.3(6) Administrative structure. Each merged area board, subject to the approval of the state board of public instruction, shall, for each educational institution or branch thereof which it may operate, establish and staff an administrative structure consistent with the educational services offered. Each area community college shall have the following divisions with a director, responsible to the superintendent, for each such division: Vocational-technical education, adult or continuing education, education in arts and sciences, student personnel services, and institutional services. If additional attendance centers are operated, a center director shall be appointed for each such center.

5.3(7) Financial records and reports. The area community college shall maintain accurate financial records and make reports in the form prescribed by the state department of public instruction.

5.3(8) Enrollment. An area community college shall meet minimum enrollment requirements if it offers instruction as outlined in 5.5(280A), and if, to the satisfaction of the state board of public instruction, it: (a) Is able to provide classes of reasonable economic size as needed by students of the merged area, (b) meets the needs of the students of the merged area in terms of available curricula as evidenced by periodic geographical area occupational surveys, and (c) shows by its past and present enrollment and placement picture that it meets the individual and employment needs.

The full-time equivalent of part-time students shall be determined by dividing by twelve the sum of all credit hours carried by all part-time students.

The total full-time equivalent enrollment of an institution shall be determined by adding to the quotient above, the total number of full-time students.

5.3(9) Student records and transcripts. The area community college shall maintain for each student a permanent record which shall include: (a) A summary of the secondary school records, (b) original copies of official transcripts on intransferring students, (c) a record of each course in which the student has been enrolled. The permanent records shall be maintained in perpetuity, and they shall be kept in a fire resistant storage located in a designated administrative office.

A cumulative record folder, including copies of both the permanent record and a compilation of any data which will assist the faculty

members to understand the student better and to assist the student to develop his talents to the greatest extent possible, shall be maintained for each student, and it shall be located in a guidance office or records center.

Official transcripts of the permanent student records shall be issued to the student involved and to authorized persons upon the approval and signature of the designated school official. The transcripts shall provide, as a minimum, the items enumerated in any adequate transcript guide which the state department of public instruction may designate.

5.3(10) Registrar. The registrar shall provide for all student registrations, keep the official student records, issue all transcripts of student records, maintain statistics on student enrollments, class size, room and space utilization, and other pertinent data.

5.3(11) Admissions officer. The admissions officer shall enforce the policies of the admissions requirements, receive and act upon all applications for admission, co-operate with the directors and department heads, and co-operate with the public schools in the area.

5.3(12) Catalog. The catalog of the area community college shall be the official publication of the college. It shall include accurate information on the following: (a) Statement of institutional policy; (b) listing of administrative, faculty, and staff personnel; (c) curricular offerings; (d) all courses by course number, title, credit hours, and description; (e) admission requirements; (f) retention standards; (g) graduation requirements; (h) grading system; (i) rules of conduct; (j) college costs; and (k) institutional accreditation or approval. The catalog shall be published at least every other year.

5.3(13) Admission requirements.

a. Arts and sciences. The minimum requirement for admission as an entering freshman, including preprofessional education, shall be graduation from an approved secondary school or its equivalent. The method of determining equivalency of a secondary school diploma shall be consistent with the practices employed by the three state institutions for higher education in Iowa. The minimum requirement for admission of a student transferring from another college shall be completion of college credit from an accredited collegiate institution. The method of determining accreditation of an institution shall be in accordance with recognized institutional standards.

b. Technical curricula. The minimum requirements for admission to technical curricula shall be: (1) Graduation from an approved high school, or evidence of demonstrated interest, aptitude, and ability to profit from technical education; (2) possession of physical, mental, and emotional capability to profit from technical education; and (3) fulfillment of the prerequisites for enrollment in a curriculum including the meeting of specific standards for entrance to the particular tech-

nical curriculum which shall have been established by the state board of public instruction.

"Part-time supplemental courses" are those in which instruction is given to individuals for the purpose of increasing or extending their skill and knowledge in the occupation in which they are or have been engaged. Admission to such courses in a technical area shall be limited to persons who have left the full-time school, under conditions not in violation of the compulsory school law, and who are or have been employed in the activity in which instruction is sought.

c. Vocational. The standard minimum requirements for admission to vocational curricula shall be: (1) Evidence of demonstrated interest, aptitude, and ability to profit from vocational education; (2) possession of physical, mental, and emotional capability to profit from vocational education; and (3) fulfillment of the prerequisites for enrollment in a curriculum including the meeting of specific standards for the particular vocational curriculum which shall have been established by the state board of public instruction.

"Part-time supplemental courses" are those in which instruction is given to individuals for the purpose of increasing or extending their skill and knowledge in the occupation in which they are or have been engaged. Admission to such part-time courses in a vocational area shall be limited to persons who have left the full-time school, under conditions not in violation of the compulsory school law, and who are employed in the activity in which instruction is sought.

d. Vocational education for persons with handicaps. The requirements for admission to programs of vocational education for persons who have academic, socio-economic, or other handicaps which prevent succeeding in regular vocational education programs shall be based on analysis, evaluation, and screening of each individual's needs, abilities, and interests in accordance with procedures established by appropriate divisions of the state department of public instruction.

e. High school completion. The requirements for admission of persons to programs for high school completion shall be: (1) Chronological age of the typical high school graduate, and (2) evidence of interest and ability to complete a high school curriculum.

f. Adult general education courses. The requirements for admission of persons to adult general education courses shall be: (1) Chronological age of the typical high school graduate, and (2) evidence of interest.

5.3(14) *High school students in arts and science courses and in vocational-technical courses.*

a. Arts and science courses. Students with demonstrated superior competence in specific areas of academic fields may be admitted to college level course work in comparable areas for college credit. Authorization

to undertake such work shall have co-operative approval of the college administration and the high school principal.

b. Vocational-technical courses. Courses for all students of high school age who may best serve themselves by enrolling for vocational and technical training while also enrolled in a local high school, public or private, shall be offered in accordance with plans developed for such students subject to approval by the state department of public instruction.

5.3(15) *School year and length of periods.* The length of the school year and the length of periods for: (a) Offerings comprising the first two years of college work including pre-professional education, and (b) offerings in vocational and technical education, respectively, shall comply with the following conditions. The duration of continuing education (general and occupational) shall be governed by the course content.

a. Arts and sciences. The academic year of that portion of the educational program of an area community college which is devoted to instruction yielding credits for the first two years of college work including pre-professional education shall be a minimum of thirty-six weeks of instruction. One hour per week including passing time for twelve weeks shall be regarded as the minimum basis for one quarter hour of credit. Courses involving laboratory work shall include in addition to the required lecture minimum, at least, one quarter time per week of supervision in the laboratory. Appropriate adjustment shall be made if work is offered on the semester plan.

b. Vocational-technical education. An area community college shall provide for forty-eight weeks of instruction consisting of four twelve-week quarters. Provision shall be made for conducting programs of instruction for which the scheduling does not fit into the normal school year. The base period shall be one hour in length including passing time.

5.3(16) *Graduation requirements.* Graduation from an area community college shall be certified by the issuance of a diploma indicating the type of two-year curriculum or program which the student has completed. No student shall be issued a diploma who has not earned a cumulative grade point ratio of 1.80 or above. Grades and grade points shall be awarded as follows: A-4, B-3, C-2, D-1, F-0.

a. Associate in arts and science. The degree issued to a person who has been graduated from a two-year college curriculum shall certify that its recipient is either an associate in arts or an associate in science.

b. Associate in applied science. The degree issued to a person who has been graduated from a two-year technology curriculum shall certify that the recipient is an associate in applied science.

c. Graduate in vocational or technical education. A diploma shall be issued to a person who has been graduated from a vocational

curriculum or a technical curriculum of less than two years' duration and it shall specify the type of curriculum completed.

d. Certificate in course of instruction. A certificate of completion shall be issued to signify that a student has satisfactorily completed a course of instruction other than the above.

5.4(280A) Faculty.

5.4(1) Certificate and preparation in field of instruction. An area community college instructor or area vocational school instructor must hold a certificate issued by the state board of public instruction which is valid for teaching in such institutions. The instructor must be prepared in his respective field of instruction as outlined herein.

5.4(2) Approval in area in arts and sciences. Each instructor in any of the following areas shall hold a master's degree in his principal field of instruction from an accredited graduate school: (a) Business, (b) English, (c) the fine arts, (d) foreign languages, (e) mathematics, (f) physical education, (g) sciences, (h) social science, and (i) speech.

5.4(3) Other fields. Each person offering service or instruction in any of the following fields shall have met the preparation requirements indicated for each field.

a. Accounting. An instructor in accounting shall hold a master's degree in business from an accredited graduate school providing that the degree includes fifteen semester hours of credit in accounting of which at least three semester hours shall be graduate credit.

b. Counseling and guidance. A counselor shall have a master's degree in counseling and guidance or in college student personnel work with a major in counseling from an accredited institution.

c. Pre-engineering drawing. An instructor in this area shall hold a bachelor's degree from an institution approved by the department of public instruction with emphasis in the area of engineering graphics and competency in the field of drafting as evidenced by work experience.

d. Librarian. A professional librarian shall hold a master's degree or equivalent in library science from an accredited institution. An assistant librarian shall have a bachelor's degree with a major in library science from an accredited collegiate institution.

e. Business skills. An instructor in business skills shall hold a bachelor's degree from an accredited collegiate institution, providing that the degree includes a major in business or commerce, with advanced course work for credit in office machine operation, shorthand, and stenography or typewriting—whichever business skills the instructor will teach.

5.4(4) Approval in areas in vocational-technical education. Instructors in vocational-technical education areas shall meet the approval standards for the fields taught as outlined in the Iowa State Plan for Vocational

Education in: (a) Agriculture, (b) distribution, (c) health occupations, (d) home economics, (e) office occupations, (f) trade and industry, and (g) related courses designed to increase knowledge and understanding and develop attitudes concerned with occupations and necessary for general education.

5.4(5) Approval in adult or continuing education. Instructors in vocational-technical education areas shall meet the approval standards as set forth in 5.4(4); in other fields as set forth in 5.4(2). For all adult general education classes, the instructor shall display (a) a genuine interest in teaching, (b) evidence of proficiency in the area of instruction, and (c) compliance with all rules and regulations established by the area school superintendent or the appointed director.

5.4(6) Instructor load.

a. Arts and sciences. The standard load of an instructor in arts and science courses shall be twelve credit hours, with the exception that any faculty member may teach the equivalent of one three-credit-hour adult or continuing education course at night in addition to a full-time day school load; in no case shall it exceed sixteen credit hours.

b. Vocational-technical. The full-time teaching load of an instructor in shop or laboratory vocational and technical courses shall not exceed six hours per day, and an aggregate of thirty hours per week, including teaching, supervision, co-ordination, and other assignments provided that this limitation does not include continuing education or supplemental programs. When the teaching assignment includes classroom subjects (nonlaboratory and nonshop), consideration shall be given to establishing the teaching load more in conformity with that of "a" above.

5.4(7) Faculty organization. The faculty shall be organized in such a way as to promote unity through two-way communication between the faculty and administration and to insure faculty participation in the development of the curriculum, improvement of instruction, development of general policy, and such other matters as are appropriate. The faculty shall meet regularly to fulfill these functions. The faculty shall be organized into departments or instructional areas, and, where the department is sufficiently large to justify it, it shall be led by a chairman or departmental head who has released time and office facilities commensurate with his leadership responsibilities. The chairman or departmental head shall work in co-operation with his departmental staff in: (a) Development of a departmental curriculum responsive to the needs of the principal types of prospective students and occupations; (b) determination and administration of a departmental testing program; (c) participation with the administration in employing and promoting staff members; (d) conduct of in-service education; and (e) leadership and stimulation of the experienced members of the department.

5.4(8) Faculty development. The administration of the college shall encourage the continued development of faculty potential by: (a) Regularly stimulating department chairmen or heads to meet their responsibilities in this regard; (b) lightening the teaching loads of first-year instructors whose course preparation and in-service training demand it; (c) stimulating curricular evaluation, and (d) encouraging the development of an atmosphere in which the faculty brings a wide range of ideas and experiences to the students, each other, and the community.

[The above rule as herein printed also appears in the Code as section 280A.36 since it is an enactment by the general assembly.]

5.5(280A) Curriculum.

5.5(1) Arts and sciences. The first two years of college work including preprofessional education shall be offered in division of arts and sciences, and this work shall provide courses in: (a) Business, (b) English, (c) the fine arts, (d) foreign languages, (e) mathematics, (f) sciences, (g) social sciences, and (h) speech. A continuing survey of the institutions of higher learning to which students tend to transfer shall be carried on by each area institution to determine how well such students succeed and which adjustments in its curriculum and standards, if any, need to be made.

5.5(2) Technical and vocational education. Instruction shall be offered in technical and vocational education in no less than five different occupational fields as defined by the state department of public instruction leading to immediate employment. The occupational fields in which instruction is offered shall be determined by merged area and geographical area needs as identified by periodic surveys in these areas. Advisory committees shall be used in connection with these surveys and in establishing instructional programs.

a. Technical education. The curricula which may be offered under the heading "technical education" shall be classified as: (1) Agricultural education, (2) distributive education, (3) health occupations education, (4) home economics education, (5) office occupations education, (6) trade and industrial education, and (7) special technical education programs.

b. Vocational education. The curricula which may be offered under the heading "vocational education" shall be classified in the same manner as those offered under the heading of technical education.

c. Curriculum content. A technical education curriculum shall include fifteen to thirty percent in related instruction, for example, communication skills, social studies, economics, and human relations; twenty to thirty percent in related basic and applied mathematics and science; forty to sixty percent in technical skills and specialties; and zero to ten percent in electives.

Vocational curricula will require more time devoted to the development of skills and specialties than will technical curricula.

5.5(3) Part-time occupational education. Part-time adult continuing or supplemental education shall be offered as needed in the technical and vocational areas cited herein including education for single skill occupations, supervisory development, related instruction for apprentices, and new industry and business education.

5.5(4) Part-time general education. Part-time adult or continuing general education shall be offered as needed in adult basic education; adult secondary education; continuing general education of a liberal, informational, avocational, or recreational type; and community service programs.

5.5(5) Programs of technical and vocational education for the handicapped. Surveys shall be conducted in each merged area to determine the educational needs of persons who, due to academic, socio-economic, or other handicaps, are prevented from succeeding in regular technical or vocational education programs, and appropriate modifications in facilities, materials, and instructional arrangements shall be made to make it possible for those whose abilities and interests warrant it to enroll in such programs.

5.6(280A) Community services. The area community college shall provide a program of community services designed to meet the needs of the persons residing in the merged area. Programs shall be developed with the assistance of an advisory committee. The purpose of the community service programs shall be to foster agricultural, business, industrial, cultural, and recreational development in the area.

5.7(280A) Standards of work and student load.

5.7(1) Arts and sciences. Each course which is offered in the arts and sciences division for college credit shall be taught at a standard consistent with the quality and quantity of similar courses offered in accredited institutions of higher learning.

Courses of a remedial nature or a prefreshman level shall not bear college transfer credit and shall be clearly identified in the college catalog and on transcripts.

A normal full-time student's load shall be sixteen credit hours. Additional work may be taken by superior students with faculty approval, but no student shall be permitted to register for more than twenty credit hours without college approval.

A full-time student in arts and sciences shall be defined as one who is carrying twelve or more hours of college credit.

5.7(2) Technical and vocational education. Each course offered in the area of technical and vocational education shall be taught at a standard consistent with the quality and

quantity of work needed to prepare the student for successful employment in the occupation for which instruction is being offered.

A full-time student in technical or vocational education shall be defined as one who is taking twelve or more credit hours of technical or vocational education credit.

Curricula in technical and vocational education shall be offered on the basis of an average load of thirty class hours per five-day week, twelve weeks per quarter. Students enrolled in part-time curriculum work shall be scheduled, based on class needs, to accomplish this average load, but over a longer period of time.

a. Class work. "Class work" shall mean lecture and other classroom instruction. One quarter hour of technical or vocational credit shall require one hour of class work per week for twelve weeks.

b. Laboratory work. "Laboratory work" shall mean demonstration by the instructor, and experimentation and practice by students. One quarter hour of technical or vocational credit shall require two hours of laboratory work per week for twelve weeks.

c. Shop work. "Shop work" shall mean development of manipulative skills and job proficiency. One quarter hour of technical or vocational credit shall require three hours of shop instruction for twelve weeks.

5.8(280A) Library.

5.8(1) Staff.

a. A professional librarian as defined by 5.4(3)"d" herein shall be employed.

b. The librarian shall have faculty rank equivalent to that of a department head as defined by 5.4(7) herein.

c. An area institution with a full-time equivalent enrollment up to 500 shall employ one professional librarian, and, for each increase of 500 in enrollment, one additional professional librarian shall be employed.

d. An area institution with a full-time equivalent enrollment up to 500 shall employ one assistant librarian as defined by 5.4(3) "d" and also at least one clerical assistant; at least one additional clerical assistant shall be added for each additional 500 students enrolled.

e. Student assistants may be employed on a part-time basis, provided they are not left with complete supervision of the library or a branch thereof in the absence of a professional librarian or an assistant librarian for longer than a two-hour period.

5.8(2) Expenditures.

a. The library expenditures shall be at least five percent of the total general fund budget.

b. The percent of the general fund budget devoted to the library shall, if necessary, be augmented as the student enrollment of course offerings, or if the library is responsible for audio-visual services.

c. The library expenditures for an area institution shall exceed five percent of the general fund budget each year by the amount

needed to meet the conditions of 5.8(3)"a" herein.

5.8(3) Collections.

a. An area community college with an enrollment up to 1,000 full-time equivalent students shall have a professionally selected book collection of at least twenty volumes per student; for each additional 500 students, there shall be an additional ten volumes per student. The collection of an area vocational school shall be evaluated in terms of its adequacy for the number and variety of programs offered and the number of students enrolled.

b. In addition to the book collection the library shall have a professionally selected list of periodicals, newspapers, government documents, maps, pamphlets, and basic reference books all appropriate for each area in which instruction is given.

c. The audio-visual services of the library shall include recordings, tapes, slides, film strips, and other appropriate audio-visual items.

d. The library collection shall be fully organized for use, using classification schemes and cataloging practices in general use by professional librarians.

e. Provision shall be made for locating library materials as needed for ready reference in classrooms, laboratories, and shops.

5.8(4) Quarters. Whether housed in a separate building or as a part of a complex, the library shall be centrally located on the campus or at the attendance center; its lighting shall conform to generally accepted standards for libraries; it shall be air conditioned; there shall be free access to the collections with seating accommodations for at least twenty-five percent of the full-time equivalent students enrolled. Provision shall be made for expansion as the student enrollment and collection grow.

5.8(5) General standard. Merged area boards shall take into account recognized standards developed by professional librarians and accrediting associations in developing, equipping, staffing, housing, and operating library services in the educational institutions which they maintain and operate. Evaluative instruments developed by these librarians and associations shall be used in appraising the adequacy of libraries in area institutions.

5.9(280A) Laboratories, shops, equipment, and supplies. Laboratories, shops, equipment, and supplies comparable with that used in the occupations for which instruction is offered shall be provided in accordance with the conditions of the most recent Iowa state plan for vocational education. Similarly, arts and science courses shall be supported in a manner comparable to those which prevail in standard, accredited colleges and universities to which students may wish to transfer college credits.

Specific annual budgetary provisions shall be made to meet this standard.

5.10(280A) Physical plant. The location, buildings, and equipment of the area institution shall be well maintained and in good repair. A consistent plan of systematic maintenance shall be in evidence.

The physical plant shall be adequate in size and properly equipped for the program offered.

5.11(280A) Student personnel services. A program of student personnel services shall be provided to meet the needs of students.

5.11(1) Counseling and related services. Professionally prepared and certificated counselors shall be employed on the staff of the director of personnel services. There shall be one professional counselor for each three hundred full-time equivalent students. These services shall deal with student academic, vocational, and personal adjustment problems. More specifically, these services shall be concerned with standardized testing, personal data collection, counseling, information service, placement, and follow-up. Allotments shall be made of space, time, equipment, and materials necessary for a comprehensive program providing counseling and related services in keeping with the total programs of the institution.

5.11(2) Housing. Unmarried students under twenty-one years of age and not living at home shall be required to live in approved housing. The inspection and approval of private residences for student housing shall be done by the division of personnel services to insure that students will be protected from exploitation and will live in a healthful situation. If the area institution maintains a residence hall, its staff shall be selected in terms of their interest with priority given to those who have experienced background or preparation for this type of work.

5.11(3) Health services. Provision shall be made for health services adequate to meet those student needs which fall within the responsibility of the area institution operated by a merged area board.

5.11(4) Extracurricular activities. Sufficient extracurricular activities to afford students an opportunity for leadership and initiative shall be provided. Planning of the activities shall involve both students and faculty, but all activities shall be under the direct supervision of qualified members of the faculty or staff.

5.12(280A) Approval procedures.

5.12(1) Procedure for first and second years of operation. Temporary approval of an area community college for each of the first two years of operation shall be granted annually subject to approval by the state board of public instruction and the state board of regents upon certification by the state department of public instruction that said institution has followed prescribed procedures in getting started and that it gives promise of ultimate

compliance with all standards contained herein.

During the second year of operation, the institution shall prepare a comprehensive self-study following the directions issued by the state department of public instruction.

5.12(2) Procedures after second year of operation.

a. During the third year of operation, the institution shall be visited by a team of six examiners equally representing the state board of public instruction and the state board of regents and chosen by the respective boards. The chairman of the team shall be selected by the state department of public instruction. The examiners shall spend a minimum of two days at the institution visited.

b. Within one month after the visit the chairman of the examination team shall submit to the state board of public instruction and the state board of regents a report, together with the institution's self-study and pertinent supplementary materials. The report shall identify the institution's strengths and weaknesses on the basis of the state standards and the final pages of the report shall consist of a specific recommendation as to whether or not approval by the state board of public instruction and the state board of regents seems warranted. The head of the institution shall have an opportunity to file supplementary statements or data. The state department of public instruction shall distribute copies of the report, the self-study, any supplementary statements or data filed by the head of the institution, and related materials to the members of the state board of public instruction and the state board of regents.

c. If, after the visit by the examination team, the institution is given full approval by the state board of public instruction and the state board of regents, its approval shall continue, ordinarily, on an annual basis for a period of five years, contingent upon evidence that the institution is making consistent efforts to strengthen the areas in which weaknesses were noted. To provide this evidence of progress, the institution shall submit by April 1, of each year, a report of what improvements have been made and what changes are planned for the next year. To supplement and verify this annual report, a representative of the state department of public instruction shall visit each institution at least one day each year. However, acting jointly, the state board of public instruction and the state board of regents have the discretionary authority to review the approval in intervening years.

On the basis of this report and the visit by its representative, the state department of public instruction shall recommend to the state board of public instruction and the state board of regents whether or not an institution's approval should be continued. The institution shall be revisited by an examination team every five years. If the state department of public instruction believes that the situation in a given institution warrants such, it shall arrange for a revisit by an examination team,

which shall always be preceded by a self-study, even though a period of five years has not yet elapsed.

d. If, after the visit by the examination team, the institution is given provisional approval by the state board of public instruction and the state board of regents, the institution shall be revisited by an examination team within three years after the original visit. One year after the team visit and again a year later, the institution shall be visited by a representative of the state department of public instruction who will submit an annual report as provided in 5.12(2)"c" herein.

On the basis of the visit and the report, the state department will recommend to the state board of public instruction and the state board of regents whether continuation of provisional approval seems warranted. Provisional approval shall continue if, in the judgment of the state board of public instruction and the state board of regents, the institution has made satisfactory progress in improving areas where weaknesses were noted by the examination team.

"Provisional approval" shall mean that the institution's strengths are judged to be greater than the weaknesses and that there is a good possibility that the weaknesses can be corrected within three years or less.

5.12(3) State financial aid. An institution that has received temporary approval, full approval, or provisional approval by the state board of public instruction and the state board of regents is eligible to receive financial aid from state funds.

5.12(4) Progress toward regional accreditation. Each area community college that has not received accreditation by the regional association is expected to demonstrate that it is making annual progress toward meriting such accreditation.

5.13(280A) Standards for area vocational schools. Area vocational schools; with the exception of offering the first two years of college work including preprofessional education and with the exception of providing instructors, facilities and equipment for such college work; shall be subject to the same standards as outlined for area community colleges and hereinabove set forth insofar as applicable.

[Filed October 5, 1966; amended 62 G.A., ch 244, section 29]

5.14(280A) Tuition rates.

5.14(1) Residents. The board of directors of any merged area vocational or area community college may establish tuition rates not to exceed one hundred dollars per semester of eighteen weeks, for resident students of the state, who are subject to tuition under section 280A.18, of the Code, enrolled for a full course of study and may establish equivalent and lesser rates for such resident students of the state enrolled for less than a full semester work-load or for specific course-subjects of less than eighteen weeks' duration.

5.14(2) Nonresidents. The board of directors of any merged area vocational or area community college may establish tuition rates not to exceed the actual operational costs per semester of eighteen weeks for students who are nonresidents of the state of Iowa enrolled for a full course of study and may establish equivalent or lesser rates for nonresident students of the state enrolled for less than a full semester work-load or for specific course-subjects of less than eighteen weeks' duration. In no case shall these rates be less than for Iowa resident students.

5.15(280A) Attendance outside resident area. The boards of directors of two or more merged areas, may by agreement provide for attendance of students residing in one area in the vocational school or community college of another area for the purpose of taking courses not offered in the area of their residence. The boards of directors of merged areas entering into such agreements may provide for sharing of costs and expenses of such courses. No agreement entered into under this section shall have any force or effect until approved by the state board of public instruction.

5.16(280A) Building site—size. All sites for area school shall be approved by the state board of public instruction. The minimum size for an area school site shall be 80 acres for the first 100,000 in total population in the merged area plus additional 10 acres for each additional 25,000 in population or major portion thereof. Provided, however, that the state board of public instruction may waive said requirement for good cause shown.

5.17(280A) Building plans. All building plans and specifications for construction shall be submitted to the state board of public instruction for review and approval of educational adequacy.

5.18(280A) Preliminary planning. Each merged area board shall present evidence of adequate, preliminary planning along with the preliminary building plans and specifications. Preliminary planning includes: Tentative program approval; a master campus plan; written educational specifications; site plot showing location of proposed facilities, and existing facilities; elevations and floor plans; and specifications of materials.

5.19(280A) Other governmental approval. After a tentative approval has been received from the state board of public instruction, evidence shall be submitted indicating the approval by the state fire marshal and by the state department of health, when required, before final approval will be made by the state board of public instruction.

5.20(280A) Parking lots. All-weather parking lots of adequate size to accommodate the enrollment shall be included as part of the planned construction.

5.21(280A) Flexibility and expansion. Evidence shall be presented to show that flexibil-

ity and expansion of the proposed construction is possible.

5.22(280A) Physically handicapped. The facilities planned shall be functional for the physically handicapped.

5.23(280A) Adequate facilities. All administrative facilities, classrooms, laboratories and related facilities shall be educationally adequate for the purpose for which they are designed.

5.24(280A) Air-conditioning. All buildings or parts of buildings, used for instructional or office purposes, shall be air-conditioned, to accommodate year-around use of such facilities.

5.25(280A) Library. An instructional material center shall be planned as a part of the master campus plan and some space made available for library services within the initial construction.

5.26(280A) Commons. An area of the school plant shall be provided where students may gather informally and where food is available.

5.27(280A) Permanent facilities. All facilities constructed with state funds appropriated for area school construction shall be of a permanent type.

5.28(280A) Nonacceptable facilities. No facility intended primarily for events for which admission may be charged, nor any facility specially designed for athletic or recreational activities other than physical education, shall be constructed with state-appropriated funds.

[Filed January 11, 1966; amended October 5, 1966, October 10, 1966, April 17, 1967]

TITLE IV
DRIVER AND SAFETY EDUCATION
CHAPTER 6
DRIVER EDUCATION

- 6.1 Certification and approval.
- 6.2 Time standards.
- 6.3 Summer school.
- 6.4 Time on driving simulators.
- 6.5 Driving ranges.
- 6.6 Adult programs.
- 6.7 Dual controlled cars.
- 6.8 Insurance.
- 6.9 Instruction permit.
- 6.10 Reimbursement.
- 6.11 Records.
- 6.12 Failure to qualify.

6.1(257) Certification and approval.

6.1(1) The instructor in driver education must have a certificate valid for teaching in secondary schools in the state of Iowa.

6.1(2) To be approved the instructor must have ten semester hours in the field of safety education including two semester hours in actual behind-the-wheel driving.

6.1(3) The instructor must have a valid Iowa operator's or chauffeur's license.

6.1(4) The instructor must have a satisfactory driving record verified by the state department of public safety.

6.1(5) The instructor must be free of any physical defects that would be a handicap in the teaching of driver education.

6.2(257) Time standards.

6.2(1) Minimum time. Schools shall provide for each student an absolute minimum of thirty class hours of sixty minutes each (or a total of eighteen hundred minutes) in classroom instruction, plus six class hours of sixty minutes each (or a total of three hundred sixty minutes) in supervised laboratory instruction, exclusive of observation time, in a dual control automobile.

6.2(2) Evaluation. In evaluating driver training courses for approval, consideration will be given to whether: The classroom and driving phases run concurrently; and the driver education course be organized on the full-semester basis. Time allotments for each phase of the program should be such that time spent in each, at any one time, is equivalent to the time allotment in other subject areas. Time allowances to take care of individual differences, and special occasions in each school should be provided over and above the minimums set forth in 6.1(1).

6.2(3) Scheduling class sessions. The following will serve as a guide for determining the number of sessions required for class periods of specified durations to assure thirty clock hours per student in classroom instruction:

Minutes per Class Period	Minimum Number of Sessions Required
40	45
45	40
50	36
55	33
60	30

6.2(4) Scheduling practice driving. To assure six clock hours per student in practice driving instruction, the following table will be observed:

Minutes per Class Period	Minimum Number of Sessions Required	
	Two Pupils in Car	Three Pupils in Car
40	18	27
45	16	24
50	15	22
55	14	20
60	12	18

6.3(257) Summer school. Summer school driver training courses shall be at least eight weeks in duration. If all the instruction is scheduled in the summer the amount of time devoted to the program shall be on the same basis as outlined in the previous sections. Specific approval for any proposed course of less than eight weeks in duration must be obtained from the department of public instruction prior to commencing the course.

6.4(257) Time on driving simulators. When simulators are used for part of the practice driving experiences, four hours of simulator experience shall be considered equal to one hour of practice driving in the car. Not more than three of the six hours required for practice driving may be simulator experience.*

6.5(257) Driving ranges. Special permission for programs on multiple-vehicle driving ranges must be secured from the department of public instruction.

6.6(257) Adult programs. Wherever possible adult programs will provide a basic course comparable in time and content to that of the secondary school.

6.7(257) Dual controlled cars.

6.7(1) Used on streets. Dual controlled automobiles shall be used in all cases involving driving on the street or highway.

6.7(2) Marking. All dual controlled automobiles should have identification signs, visible from the rear, showing that the automobile is being used for driver education. If the vehicle is being used for other than driver education, the identification signs should be removed or covered.

6.8(257) Insurance.

6.8(1) Liability and property damage. All dual controlled automobiles shall be adequately insured. The following policy limits are deemed adequate coverage: \$100,000-300,000 on liability and \$50,000 on property damage.

6.8(2) Medical payments. Liability insurance does not cover injuries received by students in accidents by other vehicles or from other causes not resulting from carelessness, on the part of the student or the instructor. Therefore, medical insurance of at least one thousand dollars per student shall be carried.

6.8(3) Uninsured motorist. It is hereby approved that all dual controlled automobiles be covered by uninsured motorist insurance.

6.9(257) Instruction permit. Students enrolled in an approved driver education program must meet the preliminary licensing provisions of the department of public safety.

6.10(257) Reimbursement. The secretary of each district entitled to driver education reimbursement shall, on or before the first day of July of each year, report to the state department of public instruction on forms furnished by the department, such information as it may require for determining the amount the district shall be reimbursed for driver education courses provided to pupils. The state department may require further supporting data and information, and from said reports, data and information, it shall determine and compute

the amount to which each district is entitled for reimbursement, and shall certify same for payment to the state comptroller who will draw warrants upon such certification and cause same to be delivered to the districts named as payee thereon. The appropriation for driver education shall be used to reimburse school districts in the amount and manner provided by law.

6.11(257) Records. The necessary records for determining the days of attendance for each student enrolled, in each phase of the driver education program, shall be maintained by each school in the district.

6.12(257) Failure to qualify. Failure by any local district to comply with the provisions of law, or any rules or regulations made by the state department of public instruction, relating to driver education, shall disqualify such district for reimbursement for and during the period such failure to comply existed.

[Filed December 2, 1965]

TITLE V
DUAL ENROLLMENT
CHAPTER 7
SHARED TIME

7.1 Policy and purpose.

7.2 Applicability of rules.

7.3 Who may apply.

7.4 Content of application.

7.5 Report required.

7.6 Form of application.

7.7 Where to file.

7.8 Time for filing.

7.9 Local policies.

7.1(257) Policy and purpose. The purpose of this chapter of rules of the department of public instruction is to provide an orderly and uniform procedure, for the submission of approval applications for shared-time arrangements, by boards of directors of public school districts, to the state board of public instruction, under section 257.26(2) of the Code, as construed in the opinion of the attorney general of Iowa dated November 4, 1965, and further construed in the opinion of the attorney general dated April 27, 1967.

It is hereby declared to be the policy of the state board that all applications submitted from sources other than herein authorized, or substantially deviating in content of form from the requirements hereinafter set forth, will be returned, without approval action, to the party submitting same, for resubmission from the proper source or after deficiencies in form or content have been remedied.

7.2(257) Applicability of rules. Rules appearing in this chapter apply only to shared-time arrangements proposed under section 257.26(2) of the Code. In the event a school district elects to enter into a shared-time arrangement under the provisions of section 274.7 of the Code as construed in the opinion

*Standards 6.1 through 6.4 are the minimum recommendations of the National Education Association as well as requirements of most state departments and insurance companies. The insurance companies accept these standards for offering a lower rate of insurance premium where there is a person under the age of twenty-five driving the family car.

of the attorney general dated November 4, 1965, by the independent method described in said opinion, no approval application will be submitted to or acted upon by the state board of public instruction.

7.3(257) Who may apply. Applications for approval of shared-time arrangements may be submitted to the state board of public instruction directly by boards of directors of public school districts.

7.4(257) Content of application. Applications for approval of shared-time arrangements shall specify the courses in which the applicant board of directors propose to permit enrollment of students who are also enrolled in private schools and the tentative number of such students proposed to be enrolled in each course. Each application shall state whether or not the board of directors of the applicant public school district waives the requirement that it shall be given notice by the state board, of its decision to permit such special enrollment, at least six months prior to July 1 of the school year in which said special enrollments are proposed to be made.

7.5(257) Report required. Each applicant school district shall agree to submit to the state department, on or before September 15 of each year, a report covering the following items:

7.5(1) Teacher load. Specify the total number of students, both dually-enrolled and regularly-enrolled, who will attend upon each class or class section in specified courses.

7.5(2) Course availability. State whether or not the courses specified under subsection one of this section are available at the private school or schools in which each of the students proposed for admission to dual enrollment is enrolled.

7.5(3) Minimum curriculum. State whether or not each of the private schools from which it is proposed to accept students on a shared-time basis maintains minimum curriculum as defined in section 257.25 of the Code.

7.5(4) Prerequisite courses. State whether or not each shared-time student proposed for enrollment in specified public-school courses has completed prerequisite courses, if any, in a school or schools maintaining standards equivalent to the approval standards for public schools in the state of Iowa.

7.5(5) Competence through testing. State whether or not each student proposed for enrollment in specified public-school courses, who has not completed prerequisite courses in a school or schools maintaining standards equivalent to the approval standards for public schools in the state of Iowa, has demonstrated competence for admission to such course through testing.

7.5(6) Tuition. State the number of shared-time students who are actual residents

of the public school district, the number, if any, who will be enrolled on a tuition basis, the amount of tuition to be charged, and who will pay the tuition.

7.6(257) Form of application. Applications shall be submitted in the form of a resolution of the board of directors of the applicant public school district and may be supported by affidavits and exhibits. Applications shall be typed in pica or equivalent using a standard type-writer face (no script) on bond paper size 8½" by 11" in triplicate.

7.7(257) Where to file. All triplicate applications shall be filed with the State Department of Public Instruction, Des Moines, Iowa.

7.8(257) Time for filing. All applications in which the local board does not waive the six-month notice requirement as provided in 7.4(257), supra, must place their applications on file at least eight months prior to July 1 of the school year in which special enrollments are proposed to be made. All applications in which the six-month notice is waived must be placed on file no later than May 1 of said year. From and after November 1, 1966, applications failing to meet the applicable filing deadline will be returned without being acted upon by the state board.

7.9(257) Local policies. Each applicant school district shall attach to its application a copy of rules and policies adopted by it, pursuant to authority of section 279.8 of the Code for the government of shared-time programs. [Filed May 10, 1966; amended July 13, 1967]

TITLE VI

HIGH SCHOOL EQUIVALENCY CERTIFICATES

CHAPTER 8

HIGH SCHOOL EQUIVALENCY CERTIFICATES

- 8.1 Test.
- 8.2 By whom administered.
- 8.3 Minimum score.
- 8.4 Date of test.
- 8.5 Retest.

8.1(259A) Test. Applicants for high school equivalency certificates shall satisfactorily complete the high school level General Educational Development Tests of the American Council on Education, 1785 Massachusetts Avenue, N. W., Washington, D. C. 20036.

8.2(259A) By whom administered. The General Educational Development Tests shall be administered in Official Iowa General Educational Development Testing Service agencies, official agencies of the Veterans' Testing Service of the American Council on Education in other states, the United States Armed Forces Institute, and Veterans' Administration Hospitals which have an authorized educational therapy program.

8.3(259A) Minimum score. Applicants shall make a minimum standard score of forty on

each test and an average standard score of forty-five on all five of the General Educational Development Tests.

8.4(259A) Date of test. Test results dated prior to the date of application will be acceptable provided the tests were taken at an authorized center as specified in rule 8.2(259A).

8.5(259A) Retest. Any applicant not achieving the minimum standard test scores as defined in rule 8.3(259A), upon payment of a five-dollar fee, shall be permitted to make application for retest, provided that one of the following conditions is met:

8.5(1) A period of one year from the date of original testing has elapsed.

8.5(2) The applicant shall complete instruction in an adult education program, in the area or areas to be retested. This instruction shall be certified to the department of public instruction by an official of the adult education program.

[Amended September 18, 1969]

TITLE VII

INTERSCHOLASTIC COMPETITION

CHAPTER 9

EXTRACURRICULAR

INTERSCHOLASTIC COMPETITION

- 9.1 Purpose.
- 9.2 Approved list.
- 9.3 Filings by organizations.
- 9.4 Governing body of organizations.
- 9.5 Organization elections.
- 9.6 Salaries.
- 9.7 Expenses.
- 9.8 Compensation reported.
- 9.9 Bond.
- 9.10 Access to records.
- 9.11 Appearance before state board.
- 9.12 Eligibility requirements reported.
- 9.13 Organization policies.

9.1(257) Purpose. The purpose of this chapter of rules is to implement the provisions of subsection 9 of section 257.25 of the Code, and so much of subsections 10, 11, and 12 of said section as may be applicable to subsection 9.

9.2(257) Approved list. Neither school districts nor pupils of said school districts shall participate in events sponsored by organizations which are required to meet requirements imposed by statute or rule for their operations, if such organizations are found not to be in compliance therewith. After official notice to the school districts of such noncompliance by an organization, continued participation shall be cause for said district to be removed immediately from the approved list of schools by the state board of public instruction.

9.3(257) Filings by organizations. Each organization, as defined in section 257.25(9) of the Code shall maintain a current file with the state department of public instruction of the following items:

9.3(1) *Constitution and bylaws.*

9.3(2) *Current membership lists.*

9.3(3) *Organization policies.*

9.3(4) *Minutes of all meetings of organization governing bodies and executive boards thereof.*

9.3(5) *Proposed constitution and bylaw amendments or revisions.*

9.3(6) *General bulletins.*

9.3(7) *Other information pertinent to clarifying organization administration.*

9.4(257) Governing body of organizations. The membership of the governing body of each organization shall be school administrators, teachers, and elective school officers. Provided, however, that such membership shall include:

9.4(1) School board member. One member who shall be a member of a school board in Iowa, appointed by the Iowa Association of School Boards to represent the lay public.

9.4(2) Activity member. One member, who is either a coach, sponsor or director, of an activity sponsored by the organization to which he is elected and who works directly with the students or the program; this member is to be elected by ballot of the member schools, the vote to be cast by the school's designated representative of the organization involved.

9.5(257) Organization elections. The election procedure for each organization shall be conducted as provided by their constitution. All criteria for protecting the voters' anonymity and insuring adequate notice of elections shall be maintained in the election procedures. In addition, there shall be one representative designated by the state board of public instruction present at the counting of all ballots. That representative shall also validate election results.

9.6(257) Salaries. No remuneration, salary, or remittance shall be made to any member of a governing board of an activity organization for his service thereon.

9.7(257) Expenses. Travel and actual expenses of said governing board members and officers of the board shall be paid from organizational funds only when on official business for the organization. Actual expenses shall be paid for travel within the state, but not more than first class air travel for transportation outside the state, along with other necessary (itemized and reasonable) expenses. Itemized accounting of the travel and business expenses of employees shall be furnished to the department of public instruction in an annual report.

9.8(257) Compensation reported. Full and detailed reports of salaries, expense accounts and fringe benefits paid employees shall be filed with the department of public instruction. All reports of expenditures and amounts paid full-time or part-time employees shall be sub-

mitted annually to the state board of public instruction.

9.9(257) Bond. The executive board of each activity organization shall purchase a blanket fidelity bond from a corporate surety approved by it, conditioned upon the faithful performance of the duties of the executive officer, the members of the executive board, and all other employees of the activity organization. Such blanket bond shall be in a penal amount set by the executive board and shall be the sum of 50% of the largest amount of moneys on hand in any 30-day period during the preceding fiscal year, and 20% of the net valuation of all assets of the activity organization as of the close of the last fiscal year, but such bond shall in no case be in an amount less than \$10,000.

9.10(257) Access to records. Upon request, organizations shall make available to the state department of public instruction or its delegated representative all records, data, written policies, books, accounts, and other materials relating to any or all aspects of their operations.

9.11(257) Appearance before state board. At the request of the state board of public instruction or its executive officer, members of the governing boards and employees of said organizations shall appear before and give full accounting and details on the aforesaid matters to the state board of public instruction.

9.12(257) Eligibility requirements reported. All organizations shall submit to the state board of public instruction for their approval detailed eligibility requirements for students who participate in organizational activities.

9.13(257) Organization policies. The constitution or bylaws of organizations sponsoring contests for participation by approved schools shall reflect the following policies:

9.13(1) "All Star" games. "All Star" games of any type shall not be held.

9.13(2) Team participation. Participation in events shall be by school teams only and not selected individuals, with the exception of individual sports events such as wrestling, track, golf, tennis, etc., and music and speech activities.

9.13(3) Contests outside Iowa. Out-of-state participation shall be limited to regularly scheduled interscholastic activities. Out-of-state participation for students or member schools in other activities must be approved by their respective association or organization.

9.13(4) Promoting interstate contests. No activity organization shall promote or support interstate contests or competition between individuals, teams or groups.

9.13(5) Chaperones. It is the responsibility of all school districts to see that all teams or contestants are properly chaperoned when engaged in interscholastic activities.

9.13(6) Insurance subsidies. No financial subsidies shall be paid to any type of insurance company for participants in any organization.

[Filed December 13, 1966]

TITLE VIII
SCHOOL LUNCH
CHAPTER 10
SCHOOL LUNCH DIVISION

10.1 Authority of state department.

10.2 Agreement with participating schools.

10.1(283A) Authority of state department. Chapter 283A of the Code authorizes the department of public instruction to administer the school lunch program in the public schools of the state.

10.2(283A) Agreement with participating schools. All school lunch programs operating in public schools and approved for federal assistance must operate according to the terms of an agreement or contract executed between the department of public instruction and the individual school. This agreement or contract is continuous and remains in effect until terminated or canceled by either party. The agreement may be terminated upon ten days notice on the part of either party, provided, however, that the department of public instruction may cancel the agreement immediately upon receipt of evidence that the terms and conditions of the agreement have not been fully complied with by the individual school.

[Filed prior to July 4, 1952]

TITLE IX
REORGANIZATION OF SCHOOL DISTRICTS

Note: This title and chapter 11 are reserved for future rules to be adopted for the purposes of implementing chapter 275 of the Code.

TITLE X
SPECIAL EDUCATION AND GUIDANCE
CHAPTER 12
SPECIAL EDUCATION

- 12.1 Definitions.
- 12.2 Reporting need status.
- 12.3 Delegation of authority.
- 12.4 Local educational units.
- 12.5 Special education personnel.
- 12.6 Approval conditions.
- 12.7 Classrooms.
- 12.8 Tuition.
- 12.9 Identification services.
- 12.10 Transportation.
- 12.11 Special equipment.
- 12.12 Physician's report.
- 12.13 Eligibility requirements.
- 12.14 Authorized personnel.
- 12.15 Special approvals.
- 12.16 Teacher load.
- 12.17 Handbook as guide.
- 12.18 When provisions mandatory.

12.1(281) Definitions. The following terms shall have the following meanings:

12.1(1) "Education for children requiring special education" shall include classes, programs, therapy, supplemental instruction, sup-

plemental assistance, special equipment, special materials, special transportation, payment of tuition, supplemental services, or other activities, singularly or in combination, provided to handicapped children.

12.1(2) "*Children requiring special education*" are defined to include the following classes of handicapped children:

a. Children "*crippled*" or children who have "*heart disease or tuberculosis, or who by reason of physical defects cannot attend the regular public school classes with normal children*" shall include those children commonly identified as crippled or other health impaired. They are those pupils who suffer from physical disabilities or severe health impairments which make it impractical or impossible for them to participate in normal classroom programs without modification, provided that "physical disability" does not include handicapping conditions otherwise defined in this chapter. Pupils with specific learning disabilities are pupils who manifest an educationally significant discrepancy between their estimated intellectual potential and actual level of performance related to basic disabilities in the learning processes, which may or may not be accompanied by demonstrable central nervous system dysfunction and which are not secondary to generalized mental retardation, educational or cultural deprivation, severe emotional disturbance, or sensory loss.

b. Children who "*have defective sight*" shall include those children commonly identified as visually handicapped. They are those pupils whose impairment, with maximum correction, does not permit them to make satisfactory use of regular instructional materials or techniques.

c. Children who "*are hard of hearing*" shall include those children commonly identified as hearing handicapped. They are those pupils having a hearing loss which significantly restricts benefit from or participation in the normal classroom program and necessitates a modified instructional program.

d. Children who "*have an impediment in speech*" shall include those children commonly identified as children with a communication handicap. They are those pupils with a disorder of communication, present when one has deviation in speech, voice, or language to the degree that it makes a difference: It interferes with self-expression, or ability to comprehend speech, or causes the individual to become maladjusted to his environment. Speech deviations which do not fit one or more of these criteria are not considered to be of a handicapping nature but rather may be of a developmental nature or an expression of individuality. The speech handicapped pupil's special education needs shall be met through six distinct speech therapy services: Identification, remediation, referrals, resource, administrative, and research services.

e. Children who are "*emotionally maladjusted*" shall include those children commonly identified as emotionally disturbed or socially maladjusted. They are those pupils

who display an inability to develop or maintain satisfactory intrapersonal or interpersonal relationships.

f. Children "*intellectually incapable of profiting from ordinary instructional methods*" shall include those children commonly identified as mentally handicapped. They are those pupils, who as a result of subaverage general intellectual functioning which is associated with impairment of maturation learning and social adjustment, are incapable of being educated profitably and efficiently through ordinary classroom instruction. "*Subaverage general intellectual functioning*" refers to performance which is greater than one standard deviation below the population mean on an approved individual test of general intelligence, administered by an approved examiner.

12.2(281) Reporting need status. To promote education for children requiring special education, special education personnel shall periodically, on forms provided, report to the state division of special education and to local school administrators the nature and extent of present special education services and indications of present and projected needs for such services.

12.3(281) Delegation of authority. To adequately supervise education for children requiring special education, locally employed directors of special education shall be delegated authority for the administration, supervision, and co-ordination of all special education activities and personnel within the school system or area served. Where more than one person of a particular specialty area is employed, the administrator will designate one as responsible for insuring program continuity and consistency.

12.4(281) Local educational units. To initiate, organize, and operate services for children requiring special education, local educational units shall:

12.4(1) Preliminary plan. Initiate special education services only after careful planning which insures sound establishment of such services, proper identification of children, meeting of required standards, and continuity of instruction which includes follow-up activities at all levels consistent with needs of the handicapped child and necessary expansion of services. Services may be established independently by a single school district or jointly by two or more contiguous school districts or in co-operation with an intermediate unit.

12.4(2) Planning considerations. In planning, specifically consider the number of handicapped pupils necessary to accommodate appropriate groupings according to nature and severity of handicaps, ages of children, and educational objectives at all educational levels, and shall provide for appropriate and continuing identification procedures. Evidence of adequate planning shall be made available to the division of special education upon request and

shall be considered in the approval of special education services.

12.4(3) Filings. Submit the following:

a. Application for the approval of individual programs for which full-time special personnel are not employed before the program is initiated. Individual programs are defined as "Programs established specifically for one child including, but not limited to special transportation, home or hospital instruction, provision of special equipment, supplemental instruction, and other special services".

b. Approval applications for the operation of special classes and the employment of special personnel during the ensuing summer or the following academic year. These shall be submitted annually before June 20 to be eligible for approval. Application for approval of programs to be initiated after the beginning of the regular academic school year (August) shall be submitted at least thirty days before the program is scheduled to be initiated.

12.4(4) Records kept. Keep in its files required evidence of the existence of a handicap and approval of the pupil's participation in the program.

12.4(5) Sequential program. Provide special instructional services only as a part of a sequential program designed to fulfill the educational and developmental goals, including vocational training and guidance, which are commensurate with the abilities of handicapped children enrolled and for whom the special service provided has been recommended by approved special education personnel.

12.4(6) Economy of effort. Insure that special class curricula utilize portions of regular school curricula whenever reasonable and consistent with the needs of children enrolled in the special class.

12.4(7) Written approval obtained for services. Insure that special written approval has been obtained from the state division of special education prior to initiating special education services involving the employment of special personnel which are employed part-time in special education and part-time in another capacity within the school or part-time in two or more of the special education personnel areas.

12.4(8) Prerequisite program approval. Insure that preschool programs for handicapped children are established only after a "Proposed Program Plan," submitted on forms provided, has been approved by the state division of special education.

12.4(9) Summer programs. Insure that rules pertinent to programs, eligibility, equipment, materials, facilities, supervision and duties of personnel are observed in summer programs for children requiring special education.

12.5(281) Special education personnel. Special education personnel shall:

12.5(1) Certification. Meet the department of public instruction certification requirements for the position employed and shall meet the approval requirements of the state department of public instruction as provided for particular special education services and programs.

12.5(2) Co-operation. Co-operate with other disciplines represented in schools and local regional agencies in order that all possible resources may be explored and utilized to complement the special services provided.

12.5(3) Records and reports. Maintain sufficient records and reports to assure continuity and effective program planning and shall submit to the division of special education records and reports specifically requested.

12.5(4) Facilities. Be provided by the local educational agency with office time, secretarial and clerical assistance, office space, supplies, equipment, and regularly available facilities as determined by professional standards to be appropriate to carry out assigned responsibilities and functions.

12.6(281) Approval conditions. Each approved public school system shall have equal opportunity for approval of programs and reimbursement of excess costs for special education services and shall observe the following additional conditions:

12.6(1) Advance payment. The cost of any program must be paid by the school system before reimbursement can be claimed.

12.6(2) Claims prorated. State reimbursement for the excess costs of approved programs shall be prorated if appropriated funds are insufficient to reimburse audited claims in full.

12.6(3) Computation basis. Computation of state reimbursement shall be computed on an annual basis (July 1 through June 30).

12.6(4) Time for making claim. Reimbursement claims for all approved special education services and programs shall be submitted upon completion of the school year and prior to June 20.

12.7(281) Classrooms. Special classes and rooms for special education shall be at least equivalent in quality to regular classrooms in the system, located in buildings housing regularly enrolled children of comparable ages, and containing facilities in keeping with an educational program designed to meet the needs of the children enrolled. Rooms shall be sufficient to accommodate the use of special equipment and individual or small group instruction if necessary. Classes for trainable mentally handicapped children may be segregated from the general school population. In some cases, for compelling reasons, a local educational agency may find it necessary, on

a temporary basis, to locate other special classes in a segregated facility. Approval to locate a special class in a segregated facility shall be obtained from the state division of special education prior to the initiation of such a program. Annual reapproval is required.

12.8(281) Tuition. If the resident school of "children requiring special education" does not directly provide appropriate special education services, tuition may be paid to another school system which has agreed to provide appropriate special education services to such pupils.

12.9(281) Identification services. Identification services, including locating pupils with handicapping conditions through routine screening and evaluative testing of referrals from parents, teachers, physicians, or others, may be provided by the local educational agency to the general school population.

12.10(281) Transportation. Special transportation may be provided by the local educational agency for any pupil whose handicap or subsequent special education service requires him to be transported to and from or in and about school.

12.11(281) Special equipment. Various types of special equipment and materials appropriate to meet specific educational needs of handicapped pupils may be provided by the local educational agency. Such equipment and materials shall be acquired, inventoried, and used according to guidelines established by the state division of special education.

12.12(281) Physician's report. Prior to placement in special classes for handicapped children, each pupil must be examined by a licensed physician; and the physician's report must be on file in the office of the special education director or local school system.

12.13(281) Eligibility requirements. Eligibility of children for special education shall, in addition to prescribed evaluations to determine diagnoses, meet the following requirements:

12.13(1) Crippled or other health impaired children. Diagnosis of crippling conditions and health impairments based upon a comprehensive physical examination by a licensed medical examiner. The director of special education shall determine the eligibility of pupils with specific learning disabilities to receive services. Determination of eligibility shall be consistent with the pupil's needs as indicated by the following evaluations performed by approved examiners:

- a. An evaluation of the pupil's educational functioning level.
- b. A psychological evaluation including at least an individual test of intelligence.
- c. An evaluation of verbal communication skills.
- d. A physical examination including a neurological examination.

e. A vision examination.

f. An audiologic evaluation.

g. A psychiatric evaluation when appropriate.

h. Social case study.

Children shall be re-evaluated annually by appropriate specialists.

12.13(2) Visually handicapped children. Determination based upon a comprehensive evaluation by a licensed eye examiner.

12.13(3) Hearing handicapped children. Determination based upon:

a. An otologic examination and subsequent otologic examination (required at least every two years or as recommended by the otologist).

b. A vision examination.

c. An audiologic evaluation by an approved hearing clinician and subsequent evaluations made at the request of the teacher or as recommended by the hearing clinician.

d. A psychological evaluation.

12.13(4) Communication handicapped children:

a. For each pupil with a communication disorder who receives remediation services, a certificate of existence of the handicapped, dated and signed by an approved speech clinician, shall consist of results of professionally reliable tests or evaluative techniques of articulation, hearing acuity, language, fluency, voice, prosody, and the peripheral speech mechanism.

b. Children shall be re-evaluated annually by an approved speech clinician.

c. Certificates shall be removed from the child's records upon completion of the therapy program.

12.13(5) Emotionally disturbed children. Evaluated by a psychiatrist or approved clinical psychologist and special education services provided shall be consistent with recommendations made by the examiner. An annual re-evaluation shall be made by appropriate specialists.

12.13(6) Mentally handicapped children. Diagnosis of mental retardation and subsequent recommendations for purposes of educational planning shall be based upon a comprehensive evaluation which includes investigation and testing of intellectual, physical, cultural, educational, medical, emotional, and sensory factors by approved examiners. Each child shall be re-evaluated by an approved psychological examiner at least once every three years.

12.13(7) Required mental capacity. Pupils enrolled in special education classes, other than those designated for the mentally handicapped, shall be capable of functioning at an intellectual level above that of a mentally handicapped pupil. In classes for educable mentally handicapped, special permission must be obtained from the state division of special

education prior to the placement of a pupil with a measured IQ of eighty or above on an individual test of intelligence administered by an approved psychologist. In classes for trainable mentally handicapped, special permission must be obtained from the state division of special education prior to the placement of a pupil with a measured IQ of thirty or less on an individual test of intelligence administered by an approved psychologist.

12.14(281) Authorized personnel. The following types of special education personnel are authorized to be employed by a local educational agency:

12.14(1) Special education directors. Employed to administer, supervise, and coordinate a total special education program.

12.14(2) Special consultants. Employed to assist school administrators in carrying out programs for pupils in need of special education.

12.14(3) Speech clinicians. Employed to provide clinical speech services necessary for identifying, planning, co-ordinating, and carrying out programs for speech, voice, and language handicapped pupils.

12.14(4) School psychologists. Employed to provide those psychological services necessary for the identification of pupils in need of special education services and for planning and carrying out programs for them.

12.14(5) Hearing clinicians. Employed to provide services necessary for the identification of public school pupils having hearing impairments and for planning and providing special education services for them.

12.14(6) School social workers. Employed to serve handicapped pupils through group or individual case work practice, consultation with school personnel, and counseling of parents and pupils.

12.14(7) Physical and occupational therapists. Employed to provide those specific therapies needed by handicapped pupils.

12.14(8) Hospital teachers and teachers of the homebound. Employed to provide instruction for pupils unable to attend regular classes because of a physical handicap.

12.14(9) Teachers for specific types. Employed to teach children who are physically handicapped, emotionally disturbed, educable mentally handicapped, trainable mentally handicapped, visually handicapped, hearing handicapped, and children with specific learning disabilities. Itinerant or resource teachers may be employed for children with specific learning disabilities, visually handicapped children and hearing handicapped children.

12.14(10) Supplemental teachers.

12.14(11) Matrons and teacher aides.

12.14(12) Work study co-ordinators and work adjustment co-ordinators.

12.15(281) Special approvals. Special approval and reimbursement may be given for special education service for which specific provisions are not otherwise made or for experimental or demonstration type services involving new practices or procedures which show promise for future application in other schools. A plan shall be submitted on forms provided by the state division of special education and approved by that division before such programs are established.

12.16(281) Teacher load. The maximum number of pupils per teacher shall be:

12.16(1) Crippled and other health impaired children. The number of pupils and the chronological age range of pupils enrolled shall not exceed the sum of fifteen except that the number of pupils shall not exceed ten in classes for specific learning disabilities.

12.16(2) Visually handicapped children. The number of pupils and the chronological age range of pupils enrolled shall not exceed the sum of fifteen.

12.16(3) Hearing handicapped children Eight pupils.

12.16(4) Emotionally disturbed children. Enrollment shall not exceed ten pupils and the chronological age range shall not exceed four years.

12.16(5) Educable mentally handicapped children. The number of pupils and the chronological age range of pupils enrolled shall not exceed the sum of twenty provided that the chronological age range shall not exceed six years.

12.16(6) Trainable mentally handicapped children. Ten pupils, provided that the chronological age range shall not exceed eight years and provided that an additional five students may be enrolled upon employment of an approved matron.

12.17(281) Handbook as guide. The guide for programming for children requiring special education shall be the Special Educator's Handbook issued by the State Division of Special Education, Department of Public Instruction.

12.18(281) When provisions mandatory. For purposes of meeting the requirements placed on junior and senior high schools by the provisions of 257.25(8)"c", the provisions of the foregoing rules shall be applicable. Said provisions shall be made either directly within such schools or indirectly through payments of tuition or other authorized expenses.

[Filed December 13, 1966]

**TITLE XI
TEACHERS**

CHAPTER 13

**GENERAL INFORMATION AND
REQUIREMENTS FOR CERTIFICATION**

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**DIVISION I
HOW TO APPLY**

13.1(257) Address to use. Address all communications to:
Department of Public Instruction
Division of Teacher Education and Certification
State Office Building
Des Moines, Iowa 50319

13.2(257) Applicants from Iowa colleges. Certificates are issued only upon application filed on a blank furnished by the department of public instruction available on request or from office of college registrars, superintendents and county superintendents. Applicants must have the recommendation of a designated official of the approved Iowa teacher-education institution where their preparation was completed.

13.3(257) Applicants from non-Iowa colleges.

13.3(1) Applicants prepared in recognized teacher-education institutions in other states may file applications exactly as in section 13.2 above, provided such colleges have filed and received approval of the curricula which they have each prospective applicant for each type of certificate complete.

13.3(2) Applicants with four-year degrees prepared in other states in institutions which are accredited by the National Council for Accreditation of Teacher Education are eligible to receive Iowa certificates in accordance with the conditions of the *Reciprocity Agreement of the Central States Conference of State Department of Education*.¹

13.3(3) Applicants whose situations do not fit those described in the preceding two paragraphs are requested to:

1. Write a letter indicating the type of teaching service for which a certificate is desired.

2. Enclose complete official transcript or transcripts showing all college preparation.

3. Itemize teaching experience, if any.

4. List all certificates held in other states, if any.

The materials presented will be evaluated and the applicant will receive a decision as to his eligibility for a certificate, and, if eligible, instructions as to steps to follow in completing the application.

13.4(257) Classification of certificates. Chapter 14 shows the classes of certificates available, the length of terms, and the specific services for which each class of certificate may be endorsed. The three areas of endorsement are: (1) Teaching or special service, (2) super-

¹See chapter 20 for text of the Reciprocity Agreement of the Central States Conference of State Departments of Education.

vision and (3) administration (principals and superintendents).

13.5(257) Fees. The fee for all original certificates is two dollars. The fee for each endorsement added to a certificate except at the time of original issuance or renewal is two dollars.

Each fee should be made payable to the superintendent of public instruction.

When an application is canceled or not approved, the fee will be refunded.

13.6(257) Transcripts not returned. All transcripts of applicants who receive certificates become the property of the state of Iowa and are not returned.

13.7(257) Response to application. Upon receipt of application, fee, transcript and other needed materials, the records will be evaluated and the certificate or the notification of any deficiency will be sent.

13.8(257) Adding endorsements. When an application accompanied by the fee is filed, a certificate will be endorsed for additional service at any time provided the applicant has met the current requirements for such endorsement. When an added endorsement is requested on the date of issuance of an original certificate or renewal, no separate fee is required. It is not necessary to return one's present certificate for added endorsements. A new certificate, with expiration date unchanged, but carrying all endorsements—old and new—will be prepared. This new certificate must in turn be registered in the office of the county superintendent of each county in which it is used.

13.9(257) Dating of certificates. Certificates are valid only from and after the date of issuance recorded thereon. All term certificates expire on June 30 of the final year of the term for which they are issued and each fraction of a year during the term of a certificate counts as a full year. The service authorized by each endorsement on a certificate may legally be performed only from and after the date of each such endorsement.

DIVISION II

REQUIREMENTS FOR ALL APPLICANTS

13.10(257) Age, physical and moral status. In addition to meeting the standards prescribed in these rules, applicants for certificates must be eighteen years of age or over, and physically competent and morally fit to teach.

13.11(257) Recency of preparation. Any applicant who meets the preparation and experience requirements for a permanent professional certificate shall be immediately eligible for that certificate without regard to the recency of that preparation or experience.

Any applicant who meets the preparation requirements for an original professional certificate, but who has had less than eight months' teaching experience during the ten-year period immediately preceding the date of application for such certificate, must have

completed at least six additional semester hours of credit in an accredited institution within the said ten-year period, such credit to be in addition to meeting the specific requirements for the type of certificate desired.

Any applicant who meets the preparation requirements for an original preprofessional certificate must satisfy the same conditions regarding recency of preparation as applicants for the original professional certificate except that the additional preparation required must be completed within the five-year period immediately preceding the date of application for the certificate.

Where recent credits are required, they should be taken in professional education or in the applicant's area or field of specialization. When an applicant qualifies for the certificate desired with the exception of having had recent preparation as herein defined, a temporary certificate, valid for one year, will be issued.

13.12(257) Graduation from approved institutions.

13.12(1) Iowa colleges. Certificates are issued on records showing graduation from teacher-education curricula in Iowa colleges approved by the state board of public instruction for the type of certification and endorsement(s) sought.

13.12(2) Colleges in other states. Certificates are issued on records showing graduation from teacher-education curricula in colleges in other states which are members of the regional accrediting agencies of the territories in which they are located, and which are accredited by the National Council for Accreditation of Teacher Education, provided such records show that the Iowa requirements have been met.

13.12(3) National accredited colleges. Certificates are issued to applicants with four-year degrees granted by colleges in other states which are accredited by the National Council for Accreditation of Teacher Education, provided the states in which such colleges are located are signatory to the *Reciprocity Agreement of the Central States Conference of State Departments of Education*,¹ provided the applicants meet the conditions of the agreement.

13.13(257) Evidence of success of experience. Every experienced teacher applying for a certificate must file evidence on forms provided showing that such experience was successful. The applicant must show also that—if legally required for the position held—an appropriate certificate authorizing such experience was held in the state in which such experience occurred.

13.14(257) Recommendation by institution. Each application for a certificate or endorsement thereof must carry the recommendation of the institution where the required program of preparation was completed.

¹See chapter 20 for text of the Reciprocity Agreement of the Central States Conference of State Departments of Education.

13.15(257) American history or government. Two semester hours of credit in American history or government are required for all certificates. Where an applicant qualifies for the certificate desired with the exception of this credit, a temporary certificate, valid for one year, will be issued.

In lieu of two semester hours of college credit in American history or government, the applicant may present evidence certified by the registrar of an accredited institution showing that said applicant has passed a special written examination in one of these subjects.

13.16(257) Standards for approval. Two sets of standards which teachers must meet are in force at all times. The first set of standards gives the requirements for teachers' certificates and the services authorized by the endorsements appearing on them. This first set of standards appears in chapters 13 to 17 of these rules.

The second set of standards, which appears in chapters 18 and 19 of these rules, governs the specific subjects and services to which teachers in schools approved by the department of public instruction must be assigned. These standards are referred to as "approval standards."

DIVISION III

DEFINITION OF "RECOGNIZED INSTITUTION"

13.17(257) Iowa colleges. All programs of teacher education and the Iowa colleges offering these programs must be approved by the state board of public instruction according to standards established by this board.

13.18(257) Colleges in other states. Programs of teacher education of colleges in other states are recognized to the extent that they are equivalent to Iowa's requirements for certificates, provided these colleges are members of the regional accrediting agencies of the territories in which they are located, and are accredited by the National Council for Accreditation of Teacher Education.

13.19(257) Validation of credit from non-accredited institutions. Applicants whose preparation has taken place at a college not accredited within the meaning of the definition herein set forth but whose teacher-education programs have been approved by the state board or other agency which has jurisdiction over teacher education and certification in the state in which such college is located and which college is accredited by the regional accrediting agency of the territory in which it is located may be issued a temporary certificate valid for a one-year term. If teaching performed under such temporary certificate is evaluated by the applicant's supervisor as successful, a professional certificate will then be issued to the applicant or, at the recommendation of such supervisor, said temporary certificate may be renewed.

Applicants whose preparation has taken place at a college not accredited by the re-

gional accrediting agency of the territory in which such college is located but which is approved by the state board or other agency which has jurisdiction over teacher education and certification within the state in which such college is located may qualify for certification after admission to a graduate school recognized by the state board of public instruction and by successful completion of six semester hours of graduate-level courses at said graduate school.

The principal responsibility for recommending applicants for certification under the provisions of this section will rest in all cases with the college at which the applicant completed his teacher-education program. In those cases where qualification has been completed by the taking of six semester hours of graduate courses, additional recommendation may be obtained from the graduate school at which the work was successfully completed.

Applicants who have qualified for certification except for the admission to a recognized graduate school and the completion of six semester hours of graduate work, as hereinabove provided, may be issued a temporary certificate, valid for one year, pending the successful completion of such work.

13.20(257) Applicants with experience. Applicants, prepared at a non-Iowa college not accredited as defined herein, who hold regular term certificates issued by the state in which the college is located and who have had one year of successful teaching experience in that state, will be exempted from taking the validating credit outlined in 13.19(257) above.

DIVISION IV

SECURING ADDITIONAL ENDORSEMENT

13.21 and 13.22 Reserved for future use.

DIVISION V

POSITIONS FOR WHICH CERTIFICATES ARE REQUIRED

13.23(257) Public school positions. Section 260.6 stipulates, "Every person employed as an administrator, supervisor, or teacher in the public schools shall hold a certificate valid for the type of position in which he is employed."

13.24(257) Private school teaching. Section 299.1 specifies that children of compulsory school age must either attend some public school or "upon equivalent instruction by a certified teacher elsewhere."

13.25(257) Registration of certificate. A contract for teaching in a public school in this state is void unless the teacher holds an Iowa certificate which has been registered in the office of the county superintendent. The Code section 260.20 includes the following statement:

"All diplomas and certificates shall be valid in any county when registered therein, and no person shall teach in any public school whose certificate has not been registered with the county superintendent of the county in which the school is located, provided that whenever

there is a sufficient number of holders of advanced and standard elementary certificates available to supply the elementary schools in any county it shall not be incumbent upon the county superintendent to register limited elementary certificates."

13.26(257) Uncertificated teaching prohibited. It is the duty of the county superintendent to order to be closed any public school or schoolroom taught by any teacher not certificated as required by law. Section 273.18, subsection 24 of the Code, requires the county superintendent to:

"Order to be closed, any public school or schoolroom taught by any teacher not certified as required by law. If his order is not immediately obeyed, he shall enforce the same against the teacher and the school board by an action for a mandatory injunction in a court of competent jurisdiction."

13.27(257) Compensation for uncertificated teaching prohibited. Under section 294.1, no compensation shall be recovered by a teacher for service rendered while without a certificate.

DIVISION VI

RESIDENCE, CORRESPONDENCE, AND EXTENSION STUDY

13.28(257) Definition of terms. Residence study is interpreted by the state board of public instruction to be study in which the class attendance is on the campus of the institution or in an approved branch school established by the institution which grants the credits for such study. Extension study shall be interpreted as that which is associated with attendance of off-campus classes except where such classes are in an approved branch school. Correspondence study shall be interpreted as that which takes place off campus and which involves no class attendance.

13.29(257) Standards for residence study. Under sections 504.12 and 504.13, at least one academic year of residence work must have been completed at the institution which grants an academic degree.

For certification purposes it may consist of one academic year; of not less than thirty weeks if distributed among three summer sessions; of twenty-four weeks if distributed among four summer sessions.

At least twenty semester hours of any accredited two-year course must be completed in residence at the institution issuing the record certifying to the completion of such course.

13.30(257) Standards for correspondence and extension study. A teacher employed full time may apply toward an original certificate not more than twelve semester hours of credit earned by any method during the regular school year of nine months.

Not more than one-fourth of any accredited two- or four-year course may be taken under projected registration, correspondence study, and extension classes; provided that an experienced teacher who is following a two-year curriculum leading to a preprofessional certificate will not be subject to this standard if

the following conditions are met: The credits in excess of fifteen semester hours shall have been completed in a class and not by correspondence study, the institution certifying to the completion of the two-year elementary teacher-education curriculum shall have had this student in residence classes for at least twenty semester hours of the work included in such curriculum.

DIVISION VII

CERTIFICATE REQUIREMENTS FOR THOSE WITH ACADEMIC DEGREES

13.31(257) Applicants without education courses. Persons holding baccalaureate degrees from accredited institutions, without having begun a program of professional education prior to the securing of such degrees, who desire to qualify for original certificates based on college degrees may secure certificates by completing the specific courses required in an institution approved for teacher education leading to a professional certificate. Such persons must complete the required work in residence. This residence work must extend over a period of at least twenty-two weeks.

13.32(257) Persons with partially completed programs of professional education. College graduates who partially completed teacher-education programs before securing their degrees, may complete their work at the institution from which they were graduated without meeting the additional residence requirement.

DIVISION VIII

CONVERSION OF PRIOR CERTIFICATES

13.33(257) Old-type certificates defined. Prior to June 30, 1935, authorization to teach known as "state certificates" were issued. These certificates were designated as first-grade state certificates when issued on the basis of four-year college degrees. When issued on the basis of two years of college preparation, they were designated either as second- or third-grade state certificates.

13.34(257) Equivalent new classes of certificate available.

13.34(1) First-grade. Holders of expired first-grade state certificates may, upon meeting requirements, exchange them for the professional certificate described in chapter 14 of these rules. The endorsement will be for secondary-school teaching when the original preparation was at that level. If the original preparation was in the elementary-school field, the endorsement will be for elementary-school teaching.

13.34(2) Second or third grade. Holders of expired second- or third-grade state certificates may, upon meeting requirements, exchange them for the preprofessional certificate described in chapter 14 of these rules. The endorsement will always be for elementary-school teaching.

¹For information regarding conversion of other types of existing certificates, see chapter 16.

13.35(257) Requirements for exchange. Eight semester hours of credit must be completed in an approved college within the five-year period immediately preceding the date of application for exchange. At least three semester hours of this total must be completed in professional education related to the endorsement to appear on the certificate.

DIVISION IX

TEACHING EXPERIENCE RECOGNIZED

13.36(257) Amount of experience. Applicants for certificates may present evidence of five years' successful teaching experience in the type of work authorized by the endorsement to appear on the certificate sought in lieu of the credits in student teaching required for such endorsements, provided the three conditions outlined in 13.37(257) are met.

13.37(257) Conditions to be met. The five years of experience to be substituted for student teaching shall have been gained in any state on a valid certificate other than an emergency certificate, a corresponding number of semester hours of credit is presented in other education courses, and the institution recommending the applicant for such a certificate is agreeable to the substitution.

DIVISION X

MISCELLANEOUS INFORMATION

13.38(257) Extension for military service. The expiration date of the certificate of a teacher who is called into military service is extended for that period of time for which said teacher is in military service, provided that said teacher applies to the state department of public instruction for such extension within one year after honorable discharge from military service has been secured, or on or before the date of expiration of his certificate, even though that date should be more than twelve months after the date of honorable discharge.

13.39(257) Certificates for exchange teachers. The state board of public instruction is authorized, section 260.10 of the Code, to issue a certificate to an exchange teacher from another state or country when such teacher has the qualifications equivalent to the regular teacher employed by the board and who is serving as the exchange teacher.

The state board has authorized the issuance of a temporary certificate valid for one year, to such exchange teachers. Employing officials participating in arrangements for the exchange of teachers should correspond with the division of teacher education and certification of the department of public instruction for instructions to be followed by the incoming exchange teacher in order to comply with the conditions of the law referred to in the preceding paragraph.

13.40(257) Revocation. Any diploma or certificate is revocable by the state board of public instruction for any cause which would have authorized or required a refusal to grant the same.

The certificate of any teacher employed in a given county is revocable by the county superintendent when, in his judgment, there is proper cause for the revocation of said certificate or when complaint is filed supported by affidavits charging incompetency, immorality, intemperance, cruelty, or general neglect of the business of the school.

The procedure for the trial before the county superintendent and the appeal to the superintendent of public instruction is set forth in Code sections 260.24, 260.25, and 260.26.

13.41(257) Requirements tentative. The minimum requirements set forth in this bulletin are to be considered as tentative in nature and subject to revision from time to time.

[Filed January 3, 1955; amended October 6, 1955, July 17, 1957, October 31, 1967]

CHAPTER 14

CLASSIFICATION OF CERTIFICATES

14.1 Classes listed.

DIVISION I

PERMANENT PROFESSIONAL CERTIFICATE

14.2 Validity.

14.3 Endorsements available.

14.4 Requirements.

DIVISION II

PROFESSIONAL CERTIFICATE

14.5 Validity.

14.6 Elementary endorsement.

14.7 Secondary endorsement.

14.8 Community or junior college endorsement.

14.9 Elementary-secondary endorsement, and other specialized endorsements.

14.10 Elementary school supervision.

14.11 Elementary-secondary supervision.

14.12 Elementary school principal.

14.13 Secondary school principal.

14.14 Superintendent.

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PREPROFESSIONAL CERTIFICATE

14.15 Validity.

14.16 Elementary endorsement.

14.17 Secondary (trade and industrial classes) endorsement.

14.18 Elementary-secondary (not available to new applicants) endorsement.

DIVISION IV

SUBSTITUTE CERTIFICATE

14.19 Validity.

14.20 Endorsements available.

14.21 Requirements.

DIVISION V

TEMPORARY CERTIFICATE

14.22 Validity.

14.23 Endorsements available.

14.24 Requirements.

DIVISION VI

PROFESSIONAL COMMITMENT CERTIFICATE

14.25 Requirements for renewal.

DIVISION VII
MERGED AREA PERSONNEL

- 14.26 Superintendent.
14.27 Director.
14.28 Instructor.

14.1(257) Classes listed. The teachers' certificates available are grouped into five major classes.¹ The various types of specific services which each teacher is authorized to perform are indicated by one or more endorsements² on the certificate held.

The classes of certificates are:

14.1(1) Permanent professional certificate. Valid throughout lifetime of holder except when revoked for cause.

14.1(2) Professional certificate. Valid for ten-year term and renewable according to prescribed conditions.

14.1(3) Preprofessional certificate. Valid for six-year term and renewable according to prescribed conditions.

14.1(4) Substitute certificate. Valid for two-year term, but, except as authorized by the department of public instruction by written statement, not to exceed ninety full days of teaching in any one academic year and renewable according to prescribed conditions.

14.1(5) Temporary certificates. Valid for one-year term.

14.1(6) Professional commitment certificate. Valid for one-year term and subject to successive renewals provided defined progress is made toward meeting the requirements for the professional certificate, provided that, effective December 31, 1963, the professional commitment certificate shall not be available for original issue. [Implementing §257.11(11)]

DIVISION I
PERMANENT PROFESSIONAL CERTIFICATE

14.2(257) Validity. The permanent professional certificate shall be valid throughout the lifetime of the holder except when revoked for cause, and for service as indicated by the endorsement or endorsements appearing thereon.

14.3(257) Endorsements available. This certificate shall have exactly the same endorsement or endorsements available on the professional certificate which every person applying for a permanent professional certificate must first have had. Additional endorsements may be made at any time that the requirements for them have been met. (See rule 14.8, below.)

14.4(257) Requirements. The holder of a professional certificate who has had four years

¹See chapter 15 for information as to the content of the preparation needed for each of the various classes of certificates.

²Except for certificates endorsed for elementary-secondary-school teaching in specified subjects, Iowa certificates give "blanket" authorization to teach any subject in the grades indicated by the endorsements. However, schools, in order to be approved by the department of public instruction, must assign duties to their teachers in accordance with the approval standards outlined in chapters 18 and 19 of these rules.

of successful experience and thirty semester hours of approved preparation beyond the baccalaureate degree shall be eligible to receive the permanent professional certificate except that, on and after August 31, 1960, said thirty semester hours of approved preparation shall have been graduate credit and a master's degree from an accredited institution shall have been awarded to said holder.

DIVISION II
PROFESSIONAL CERTIFICATE

14.5(257) Validity. The professional certificate shall be valid for a term of ten years, and for service as indicated by the endorsement or endorsements appearing thereon. It shall be renewable according to conditions prescribed in this bulletin.¹

14.6(257) Elementary endorsement.

14.6(1) Type of service authorized. Authorization to teach in kindergarten and grades one through nine.

14.6(2) Requirements. Four years of approved college preparation and a baccalaureate degree from a recognized institution.

14.7(257) Secondary endorsement.

14.7(1) Type of service authorized. Authorization to teach in grades seven through fourteen.²

14.7(2) Requirements. Four years of approved college preparation and a baccalaureate degree from a recognized institution.

14.8(257) Community or junior college endorsement.

14.8(1) Type of service authorized. Authorization to teach in a community or junior college.

14.8(2) Requirements. A master's degree from a recognized institution in an approved program of graduate study with a graduate major in a principal field of instruction and including also six semester hours of appropriate professional preparation for college teaching. [Implementing §257.10(11)]

14.9(257) Elementary-secondary and other specialized endorsements.

14.9(1) Type of service authorized. Authorization to teach only in special subjects or to serve in special service areas in nursery school, kindergarten, grades one through fourteen or limited groupings associated therewith.

14.9(2) Special subjects. The special subjects for which such endorsements are available are: Art, industrial arts, music, athletics and physical education.

14.9(3) Special service areas and specialized endorsements. The special service areas for which such endorsements are available are: Speech clinician, librarian, director of library services, public school health nurse, educational media specialist, hearing clinician, reading clinician, and special education. The

¹See chapter 17.

²Grades thirteen and fourteen are junior college grades.

endorsement for special education may be further subdivided by approval area to authorize its holder to render services primarily to the emotionally or socially maladjusted, the mentally handicapped, those handicapped in hearing, the visually handicapped, the physically handicapped, and those handicapped in their ability to communicate with others. A specialized endorsement is available for the area of nursery school-kindergarten.

14.9(4) General requirements. The requirements for the foregoing endorsements shall include four years of approved college preparation and a baccalaureate degree in all cases.

14.9(5) Special requirements. The following requirements shall be applicable to the specific endorsements indicated:

a. Speech clinician. For authorization by endorsement to provide clinical speech services in kindergarten and grades one through fourteen, the applicant must possess a master's degree based upon completion of a program of graduate study in which major emphasis was placed upon speech pathology for school speech clinicians.

b. Director of library services. For authorization by endorsement to serve as director of library services, the applicant shall have met the requirements for a professional certificate endorsed for elementary- or secondary-school teaching and shall possess a master's degree or its equivalent in library science. The applicant must present evidence of successful completion of a course or courses of study in the administration of school library services, which course or courses may be either included in, or in addition to, the work leading to said degree.

c. Nursery-kindergarten teacher. For authorization by endorsement to serve as a teacher in nursery school and kindergarten, the applicant shall possess a bachelor's degree and have completed an approved program of study for the preparation of nursery-kindergarten teachers, which program may be either included in, or in addition to, the work leading to said degree.

d. Educational media specialist. For authorization by endorsement to serve as an educational media specialist in kindergarten and grades one through fourteen, the applicant shall have met the requirements for a professional certificate endorsed for elementary- or secondary-school teaching and shall possess a master's degree based upon an approved program in the specialized area of educational media.

e. Hearing clinician. For authorization by endorsement to provide clinical hearing services in kindergarten and grades one through fourteen, the applicant shall possess a master's degree based upon an approved program of study in which emphasis was placed upon audiology for school hearing clinicians.

f. Reading clinician. For authorization by endorsement to provide diagnostic and instructional services on an individual basis as

reading clinician in kindergarten and grades one through fourteen for children with severe reading disabilities, the applicant shall have met the requirements for a professional certificate endorsed for either elementary- or secondary-school teaching and shall present evidence of completion of an approved master's degree program in clinical reading at a recognized institution. In addition, such applicant shall present evidence of at least two years of successful teaching experience.

g. School psychologist. For approval by endorsement for service as school psychologist in kindergarten and grades one through fourteen, the applicant shall possess a master's degree in psychology from a recognized institution of higher learning and shall present evidence of completion of an approved program of graduate study in preparation for service as a school psychologist, either included in, or in addition to, the work leading to said master's degree. In addition, applicant shall present evidence of two years of successful teaching experience.

h. Reading specialist. For authorization by endorsement for services as a reading specialist in kindergarten and grades one through fourteen, the applicant shall have met the requirements for a professional certificate endorsed for either elementary school teaching or secondary school teaching, secured a master's degree from a recognized institution, and have completed an approved graduate program in reading including preparation in the supervision of reading. In addition, such applicant shall present evidence of at least four years of successful teaching experience; at least one of which shall have included the teaching of reading as a significant part of his responsibility.

14.10(257) Elementary school supervision.

14.10(1) Type of service authorized. Authorization to serve as a supervisor or teacher in the kindergarten and in grades one through nine.

14.10(2) Requirements. Applicant must have met the requirements for endorsement as an elementary-school teacher and, in addition thereto, have completed twenty semester hours of approved graduate credit and have had two years of successful teaching experience except that, on and after August 31, 1960, applicant shall have met the requirements for the professional certificate endorsed for elementary-school teaching, and, in addition thereto, have secured a master's degree in elementary-school education from a recognized institution with emphasis on supervision and have had four years of successful teaching experience; provided further that said applicant shall have had elementary-school supervisory experiences, either with or without credit, under the supervision of the institution awarding said applicant's master's degree, or, in lieu thereof, equivalent experiences as judged by said institution.

14.11(257) Elementary-secondary supervision.

14.11(1) Type of service authorized. Authorization to serve only as a supervisor or teacher in special subjects or special service areas in kindergarten and grades one through fourteen.

Note: For a list of special subjects and special service areas, see rule 14.9, subrules 1 to 3, above.

14.11(2) Requirements. Applicant must have met the requirement for endorsement as an elementary-secondary teacher in the special subject or special service area in which supervision is to be done,¹ and in addition thereto, have completed twenty semester hours of approved graduate credit and have two years of successful teaching experience, except that, on and after August 31, 1960, applicant shall have met the requirements for a professional certificate endorsed for elementary-secondary-school teaching in the special subject or special service area in which supervision is to be done, and, in addition thereto, have secured a master's degree from a recognized institution and have completed an approved graduate program in this special subject or special service area, including preparation also in elementary- and secondary-school curriculum or supervision and have had four years of successful teaching experience; provided further that said applicant shall have had supervisory experiences, either with or without credit, in the special subject or special service area under the supervision of the institution awarding said applicant's master's degree, or, in lieu thereof, equivalent experiences as judged by said institution.

14.12(257) Elementary school principal.

14.12(1) Type of service authorized. Authorization to serve as a principal, supervisor or teacher in any elementary school through grade nine.

14.12(2) Requirements. Applicant must have met the requirements for a professional certificate with endorsement as an elementary-school teacher, and in addition thereto, have completed twenty semester hours of approved graduate credit and have had two years of successful teaching experience except that, on and after August 31, 1960, applicant shall have met the requirements for the professional certificate endorsed for one of the several types of teaching service, and, in addition thereto, have secured a master's degree in elementary-school education with emphasis on administration, but including attention to problems of supervision and have had four years of successful teaching experience; provided further that said applicant shall have had elementary-school administrative experiences, either with or without credit, under the supervision

¹A person holding a professional certificate who desires authorization for elementary-secondary-school supervision in special education, must have met the requirements for endorsement in only one area of the education of exceptional children.

of the institution granting said applicant's master's degree, or, in lieu thereof, equivalent experiences as judged by said institution.

14.13(257) Secondary school principal.

14.13(1) Type of service authorized. Authorization to serve as a principal, supervisor or teacher in any secondary school through grade fourteen.

14.13(2) Requirements. Applicant must have met the requirements for a professional certificate with endorsement as a secondary-school teacher, and in addition thereto, have completed twenty semester hours of approved graduate credit and have had two years of successful teaching experience except that, on and after August 31, 1960, applicant shall have met the requirements for the professional certificate endorsed for one of the several types of teaching service, and, in addition thereto, have secured the master's degree in secondary-school education with a recognized institution with emphasis on administration, but including attention to problems of supervision and have had four years of successful teaching experience; provided further that said applicant shall have had secondary-school administrative experiences, either with or without credit, under the supervision of the institution awarding said applicant's master's degree, or, in lieu thereof, equivalent experiences as judged by said institution.

14.14(257) Superintendent.

14.14(1) Type of service authorized. Authorization to serve as county superintendent, or as superintendent, principal, supervisor or teacher in any elementary or secondary school through grade fourteen.

14.14(2) Requirements.

a. Standard preparation. Applicant must have met the requirements for a professional certificate with endorsement as a secondary-school teacher, an elementary-school teacher or as an elementary-secondary-school teacher; and in addition thereto, have completed an approved program of preparation, have been awarded a master's degree by a recognized institution, and have had four years of successful teaching experience except that, on and after August 31, 1960, applicant shall have met the requirements for a professional certificate endorsed for one of the several types of teaching service, and, in addition thereto, have secured a master's degree in school administration from a recognized institution plus thirty semester hours of approved graduate study completed after the date of the awarding of the master's degree, and have had four years of successful teaching experience; provided further that said applicant shall have had general school administrative experiences, either with or without credit, under the supervision of the institution in which the additional thirty semester hours were completed, or, in lieu thereof, equivalent experiences as judged by said institution.

b. Advanced preparation. Same requirements as for standard preparation plus thirty

semester hours of approved graduate preparation beyond the master's degree.

14.14(3) Superintendent of an area vocational school or community college. To qualify for authorization to serve as superintendent of an area vocational school or an area community college, an applicant shall submit evidence of preparation and experience as follows:

a. [*Option 1**] Applicant shall have completed an approved program of preparation based upon at least a master's degree in administration and shall have had five years of successful administrative experience including administration of an accredited or approved vocational or technical institution or program embracing two or more fields of vocational or technical education.

b. Reserved for future use.

DIVISION III PREPROFESSIONAL CERTIFICATE

14.15(257) Validity. The preprofessional certificate shall be valid for a term of six years, and for service as indicated by the endorsement or endorsements appearing thereon. It shall be renewable according to conditions prescribed in this bulletin.¹

14.16(257) Elementary endorsement.

14.16(1) Type of service authorized. Authorization to teach in kindergarten and grades one through nine.

14.16(2) Requirements.

a. *On less than a degree.* Two years (sixty semester hours) of approved college preparation in a recognized institution except that, on and after August 31, 1958, the accreditation of each college or university to offer two-year programs of teacher education shall be terminated.

14.17(257) Secondary (trade and industrial classes) endorsement.

14.17(1) Type of service authorized. Authorization only to teach the specific subject or subjects designated in the recommendation in grades nine through twelve.

14.17(2) Requirements. Recommendation as to competence in designated subject or subjects made by director of division of vocational education of Iowa department of public instruction.

14.18(257) Elementary-secondary (not available to new applicants) endorsement.

14.18(1) Teaching service authorized. Authorization to teach the specified subject or subjects in kindergarten and grades one through fourteen.

14.18(2) Requirements. Applicant must be holder of a special subject certificate issued in former years which is in force or for which current renewal requirements have been met.

¹See 14.26(257) for additional options.

²See chapter 17.

DIVISION IV SUBSTITUTE CERTIFICATE

14.19(257) Validity. The substitute certificate shall be valid for a six-year term, and for the same services authorized by Iowa or non-Iowa certificate (exclusive of emergency or temporary certificate) once held by the applicant. It shall be valid only for those positions in which a regularly employed, certificated teacher actually began the school year. It shall be valid for not more than ninety days of full-time teaching during any single school year except that an appropriate supervisor in the department of public instruction may, by written statement, authorize the holder of such a certificate to teach in excess of the ninety-day period when, in his judgment, the best interests of the pupils would be served thereby. In such an event, the said substitute teacher shall not occupy the position beyond the close of the current school year.

14.20(257) Endorsements available. Endorsements on a substitute certificate shall be exactly the same as those to which the applicant would be entitled if a term certificate (equivalent to the type of certificate once held) were issued to the applicant.

14.21(257) Requirements. The applicant for a substitute certificate must once have held an Iowa or non-Iowa certificate (exclusive of emergency or temporary certificate) which, by meeting current renewal requirements in force in the state of issue, could again be issued for a term of years.

DIVISION V TEMPORARY CERTIFICATE

14.22(257) Validity. The temporary certificate shall be valid for a one-year term and for service as indicated by the endorsement or endorsements appearing thereon.

14.23(257) Endorsements available. This certificate shall be endorsed in a manner similar to permanent professional, professional and preprofessional certificates in accordance with the type of preparation completed.

14.24(257) Requirements.

14.24(1) Based on expired Iowa certificate, exclusive of emergency or one-year special certificate. The holder of an expired Iowa certificate (exclusive of emergency or one-year special certificate), who has had one year (eight months) of successful teaching experience, shall be eligible to receive the temporary certificate upon application accompanied by recommendation of a superintendent or county superintendent, provided that no temporary certificate shall be available to any teacher during the first year immediately following the expiration date of said teacher's regular certificate, and no temporary certificate shall be issued to a person whose expired, regular certificate was based on less than sixty semester hours of preparation when said certificate has been expired for a period of five years. This

certificate shall be endorsed for the type of service authorized by the expired certificate on which it is based. This certificate is non-renewable. See chapter 17 for requirements for renewal of Iowa certificate once held.

14.24(2) *Based on eligibility for a professional or preprofessional certificate except for defined deficiencies outlined in chapter 13.* This certificate is nonrenewable.

14.24(3) *Based on one hundred semester hours of specified college credit.* This certificate is available only to an applicant who has never had an Iowa teacher's certificate. It requires one hundred semester hours of college credit with eight strictly in elementary-school professional education including three in elementary-school methods. The applicant shall have completed at least six semester hours of credit within the five-year period immediately preceding the date of the issuance of the certificate. It shall give the holder authorization to teach in kindergarten and grades one through nine. [Implementing §257.10(11)]

This certificate will be renewable not to exceed three times for one-year terms upon the completion of eight semester hours of credit each year leading toward completion of requirements for a professional certificate, provided that teaching experience continues to be successful.

No temporary certificate will be issued or renewed under the provisions of this subsection from and after August 31, 1970.

14.24(4) *Based on administrative decision.* The superintendent of public instruction is authorized to issue the temporary certificate to applicants whose services are needed to fill positions in specific schools in emergency situations.

14.24(5) *Issued under the conditions of an approve Title I elementary-secondary-education Act program.* This certificate is available to persons employed in the schools under the provisions of an approved Title I elementary-secondary education Act (P. L. 89-10) program. The applicant shall have completed at least sixty semester hours of college preparation in an institution acceptable to the board. It shall give the holder authorization to teach or supervise children in the position described in the approved Title I program.

The applicant shall show moral and physical fitness for the position and freedom from communicable diseases.

The employing superintendent shall provide a complete job description of the position to be held by the applicant and a statement indicating the special qualifications the applicant has for the position.

This certificate will be renewable for additional one-year terms during employment of its holder only so long as approval of the specific Title I program is continued.

14.24(6) *Issued for the performance of supervisory or monitorial services for the pur-*

pose of relieving certificated teachers for other duties. This certificate is available to persons employed in the schools for the performance of various nonteaching duties involving the supervision of pupils and for the purposes of rendering such assistance to teachers as will enable them to perform more effectively their teaching duties.

The applicant shall show moral and physical fitness for the position and freedom from communicable diseases.

Application for such certificate shall be accompanied by a statement, from the local superintendent or administrative officer of the employing district or school, which contains a description of the work for which the applicant is proposed to be employed and states that said superintendent or officer has examined the qualifications of the said applicant and finds him physically, mentally, and morally fit for the performance of such duties.

Certificates issued under the provisions of this subrule will be endorsed for the performance of the specific duties named in the job description and annually renewable at the request of the employer.

DIVISION VI

PROFESSIONAL COMMITMENT CERTIFICATE

14.25(257) *Requirements for renewal.* The professional commitment certificate is renewable for consecutive yearly terms provided that the equivalent of six semester hours of additional preparation leading toward the professional certificate is completed each year*, and provided also that teaching experience continues to be successful and the college where the preparation is being completed recommends each renewal.

The holder of a professional commitment certificate is not required to renew it each year provided no teaching is done. However, a grand total of additional credits equivalent to at least six semester hours of progress each year (except during military service) after the issuance of the original professional commitment certificate will be required.

DIVISION VII

MERGED AREA PERSONNEL

[Rules 14.26(257) to 14.28(257) were filed by the Board of Public Instruction]

14.26(280A) *Superintendent.* In addition to the option provided in section 14.14(3)"a" [Option I] the following options are hereby authorized for the professional certificate.

14.26(1) *Option II.* Applicant shall hold a doctor's degree with specialization in educational administration granted by an institution, approved by the state board of public instruction, shall have had five years of successful administrative experience, and shall be recom-

*If recommended by the college, credits in excess of 6 semester hours completed during any year following the original issuance of the certificate may be cumulated and applied toward meeting the requirements for one or more succeeding yearly renewals. For example, if a teacher should complete 10 semester hours during a given year, 4 of them could be carried over and used on the next renewal.

mended by the institution awarding the degree as having competence to serve successfully as chief administrator of an Iowa area vocational school or area community college and as executive officer of a merged area board.

14.26(2) Option III. Applicant shall have had five years of successful experience as administrator of a regionally accredited community college or vocational school, shall hold at least a master's degree with at least two years of graduate study from a regionally accredited institution, and shall be recommended by the institution awarding the master's degree as having competence to serve successfully as chief administrator of an Iowa area vocational school or area community college and as executive officer of a merged area board.

14.26(3) Option IV. Applicant shall have had at least five years of successful teaching experience and two years of successful administrative experience in a vocational school, community college, junior college, or four-year college with successful programs in general education or college transfer, or adult or continuing general education, and at least three programs of vocational education. He shall hold an earned doctor's degree in an academic area, vocational education, adult or continuing education, student personnel work, higher education, or education with specialized work in administration.

14.26(4) Option V. Applicant shall hold a master's degree granted by an institution recognized by the state board of public instruction, and shall be evaluated by a review committee appointed by the state superintendent of public instruction as having competence to serve successfully as chief administrator of an Iowa area vocational school or area community college and as executive officer of a merged area board.

14.27(280A) Director.

14.27(1) Director of a division of area vocational school or area community college, or administrative center thereof. To qualify for a professional certificate with authorization to serve as director of a division of an area vocational school or area community college, or attendance center thereof, an applicant shall submit evidence of preparation and experience which meets one of the following options.

14.27(2) Option I. Applicant shall hold a master's degree granted by an institution, approved by the state board of public instruction, with specialization in one of the following: (a) Subject-matter field taught in the area institution, (b) administration, (c) vocational-technical education, or (d) student personnel work.

Applicant shall have had four years of successful teaching experience and shall be recommended for this certificate by the institution granting the master's degree.

14.27(3) Option II. Applicant shall hold a master's degree granted by an institution recognized by the state board of public instruction,

and shall be evaluated by a review committee appointed by the state superintendent of public instruction as having competence to serve successfully as director of a division of an area vocational school or area community college, or attendance center thereof.

14.28(280A) Instructor.

14.28(1) Instructor in an arts and sciences field of an area community college or public community or junior college. To qualify for a professional certificate with authorization to teach in an arts and sciences field of an area community college or public community or junior college, an applicant shall submit evidence of preparation and experience as follows:

Applicant shall hold a master's degree granted by an institution, approved by the state board of public instruction, with specialization in a field of instruction offered in the arts and sciences division of an area community college. This preparation shall include six semester hours of professional preparation appropriate for college teaching, provided that adequate experience in college teaching as evaluated by a review committee appointed by the state superintendent of public instruction shall be accepted in lieu of part or all the required credits in professional education.

14.28(2) Instructor in a vocational or technical field in an area vocational school or area community college or public community or junior college. To qualify for a professional certificate with authorization to teach in a vocational or technical field in an area vocational school or area community college or public community or junior college, an applicant shall submit evidence of preparation and experience as follows:

Applicant shall hold a bachelor's degree granted by an institution, approved by the state board of public instruction, with specialization for teaching in one vocational or technical field offered in the vocational-technical division of an area vocational school or area community college and recommendation by the preparing institution.

14.28(3) Instructor in a vocational or technical field in an area vocational school or area community college or public community or junior college. To qualify for a preprofessional certificate with authorization to teach in a vocational or technical field in an area vocational school or area community college or public community or junior college, an applicant shall submit evidence of preparation and experience as follows:

Applicant shall have competence in one vocational or technical field offered in an area vocational school or an area community college based on adequate preparation and experience as evaluated by a review committee appointed by the state superintendent of public instruction.

[Filed January 3, 1955; amended October 6, 1955, August 23, 1956, July 17, 1957, January

22, 1959, December 2, 1963, December 31, 1963, May 10, 1966, October 5, 1966, October 31, 1967, July 8, 1969, September 18, 1969, March 26, 1971]

CHAPTER 15

APPROVAL OF INSTITUTIONS AND TEACHER EDUCATION PROGRAMS

- 15.1 Advisory committee.
- 15.2 Recommendations by committee.
- 15.3 Experimental programs.
- 15.4 Filings by institutions.
- 15.5 Specific program filed.
- 15.6 Demonstration of competence.
- 15.7 Certificates requiring degree.
- 15.8 Graduate programs filed.
- 15.9 Out-of-state programs.
- 15.10 Revised program approval.
- 15.11 Review committee.

15.1(257) Advisory committee. Chapter 16 presents the teacher certification framework which has been adopted for Iowa by the state board of public instruction.

As a matter of policy, the state board has not set up a rigidly specified curriculum for the preparation of teachers in any field. It has authorized the superintendent of public instruction to appoint an advisory committee on teacher education and certification. This committee will make recommendations regarding the content of each of the various programs of preparation for consideration by the state board. This committee will be a recommending body only. The final legal authority rests with the board.

15.2(257) Recommendations by committee. The state board has stipulated that the advisory committee shall organize its recommendations under four categories:

15.2(1) Academic work in general education needed by all teachers.

15.2(2) Academic preparation needed for secondary- or elementary-secondary-school teachers in their chosen teaching fields, and certain subjects essential in the preparation of elementary-school teachers.

15.2(3) Preparation in education and psychology courses including teaching under supervision.

15.2(4) Student selection and guidance.

15.3(257) Experimental programs. The state board has further stipulated that the advisory committee shall organize its recommendations in such a manner that considerable room will be left for institutional initiative in the methods of preparing teachers. Experimentation with promising programs for improved preparation of teachers is encouraged by the state board.

15.4(257) Filings by institutions. Iowa colleges and universities seeking the approval of their programs of teacher education shall file evidence of the extent to which they meet the standards of the National Council for Accreditation of Teacher Education provided that colleges and universities already accred-

ited by the said council shall be exempted from filing such evidence.

15.5(257) Specific program filed. In order for its graduates to be accepted for teacher certification by the state board of public instruction, each Iowa college or university shall file a specific program or curricular pattern of teacher education designed to meet the requirements for each certificate, and it shall also specify the courses its students must complete and the levels of excellence which they must attain in said courses as a condition to being recommended for approval to teach the subjects in public schools for which standards are hereinafter prescribed.

15.6(257) Demonstration of competence. When any Iowa college or university which is approved for teacher education by the state board of public instruction certifies that an applicant for a teacher's certificate has demonstrated competence in any required area of preparation equivalent to the completion of regular college courses in that area, said applicant shall not be required to present a record of college credit in said area.

15.7(257) Certificates requiring degree. Certificates based on requirements specifying four years of college preparation and a bachelor's degree shall be issued only after the applicant for one of the said certificates has met each of the following standards, where applicable to the type of said certificate to be issued, in an Iowa college or university whose program or programs of teacher education leading to said certificates shall have been filed with and approved by the state board of public instruction:

15.7(1) General education. The applicant shall have completed forty semester hours of credit in courses specified by the institution awarding said applicant's bachelor's degree as being classified as general education.

15.7(2) Field of concentration. The applicant shall have completed thirty semester hours of credit in an area of subject-matter concentration which shall have been listed by the institution awarding said applicant's bachelor's degree in said institution's program or programs of teacher education filed with and approved by the state board of public instruction, provided that, when so designated by said institution, "elementary-school education" shall be regarded as an acceptable area of subject-matter concentration.

15.7(3) Elementary certificate subjects. The applicant for a certificate valid for teaching in the elementary-school field shall have completed preparation in at least five of the following areas: Literature for children, mathematics, art, music, geography, health and physical education, industrial arts, conservation education, elementary speech correction, and dramatics as separate college courses, or, in lieu thereof, in courses in general education required by the institution awarding said applicant's bachelor's degree.

15.7(4) Secondary certificate subjects. The applicant for a certificate valid for teaching in the secondary-school field shall have met the minimum approval standards as herein prescribed for teaching subjects with-in one or more fields outside his own area of subject-matter concentration for which said approval standards include requirements except in cases where the institution awarding said applicant's bachelor's degree shall have been authorized by the state board of public instruction to recommend applicants who have been permitted by said institution to omit preparation sufficient to meet approval standards in any field outside their area of concentration, and when said institution does so recommend said applicant.

15.7(5) Special field certificate subjects. The applicant for a certificate valid for teaching in a special subject or special service area in the elementary- and secondary-school fields shall have completed forty semester hours of preparation in general education and thirty semester hours of preparation in an area of subject-matter concentration both as specified herein provided that the special subject or special service area in which said certificate authorizes said applicant to teach shall comprise the area of subject-matter concentration, provided further that an applicant for a certificate valid to serve as a teacher in the area of school psychologist must hold a master's degree including the preparation herein prescribed and have had two years of teaching experience.

15.7(6) Hours of education courses. The applicant shall have completed a grand total of twenty semester hours of credit in professional education at least one-fourth of which credits shall be in professional education courses which deal with problems which are of common concern to both elementary- and secondary-school teachers.

15.7(7) Methods and student teaching—elementary certificate. The applicant for a certificate valid for teaching in the elementary-school field shall complete courses dealing with (a) learning experiences designed to develop skill in methods of teaching and evaluating pupil progress in the areas of instruction included in the elementary-school curriculum, and (b) shall have completed work in supervised student teaching at the elementary-school level. At least five semester hours of college credit shall have been secured in said supervised student teaching by said applicant.

15.7(8) Methods and student teaching—secondary certificate. The applicant for a certificate valid for teaching in the secondary-school field shall have completed courses dealing with (a) learning experiences designed to develop skill in methods of teaching and evaluating pupil progress in the areas of instruction included in the secondary-school curriculum, and (b) shall have completed work in supervised student teaching in the secondary-

school field. At least five semester hours of college credit shall have been secured in said supervised student teaching by said applicant.

15.7(9) Methods and student teaching—special subject certificate. The applicant for a certificate valid for teaching in a special subject or special service area at the elementary- and secondary-school levels shall have completed courses dealing (a) with learning experiences designed to develop skill in methods of teaching and evaluating progress of elementary- and secondary-school pupils in the special subject or service area for which said certificate is valid, and (b) shall have completed work in supervised student teaching in the special subject or service area for which said certificate is valid. At least five semester hours of college credit in said supervised student teaching shall have been secured by said applicant. This work in student teaching shall have dealt with both elementary- and secondary-school pupils.

15.7(10) Certification of special subject teacher as elementary teacher. The holder of a certificate valid for teaching in a special subject or special service area at the elementary- and secondary-school levels shall become eligible for certification as an elementary-school teacher by completing the same subject-matter preparation specified herein as required of the applicant for a certificate valid for teaching in the elementary-school field, and, in addition thereto, by completing six semester hours in elementary-school methods outside the special subject or special service area for which said holder's certificate is already valid.

15.7(11) Certification of special subject teacher as secondary teacher. The holder of a certificate valid for teaching in a special subject or special service area at the elementary- and secondary-school levels shall become eligible for certification as a secondary-school teacher by completing the same subject-matter preparation specified herein as required of the applicant for a certificate valid for teaching in the secondary-school field, and, in addition thereto, by completing three semester hours of secondary-school teaching methods outside the special subject or special service area for which said holder's certificate is already valid.

15.8(257) Graduate programs filed. Iowa colleges and universities offering programs of preparation leading to certificates for which graduate study is specified herein shall be authorized to recommend applicants for said certificates only when said programs have been filed with and approved by the state board of public instruction.

15.9(257) Out-of-state programs. In order to have their programs of teacher education considered for approval, out-of-state institutions shall offer programs and meet standards equivalent to those specified herein for Iowa colleges and universities and they shall also meet the following conditions: Be accredited for general excellence by a regional accredi-

ing agency for collegiate institutions operating in the territories in which said institutions are located provided said regional accrediting agency is declared by the state board of public instruction as being acceptable to it; be approved by the state board or agency under whose jurisdiction the institution operates for the particular area or specialized field of teaching in which certification is sought; and be accredited by the National Council for Accreditation of Teacher Education, or, in lieu thereof, provide such other evidence of excellence of the teacher education program as may be required by the state board of public instruction.

15.10(257) Revised program approval. Each revised program of teacher preparation leading to each class of certificate and each endorsement must be submitted to and approved by the state board of public instruction. Every institution must submit its revised program or programs on or before December 31, 1958.

15.11(257) Review committee. The state board will take action regarding the approval of programs submitted by each institution after the report of a reviewing committee designated by the superintendent of public instruction has been submitted. In addition

16.2(257) Conversion tables. The following tables summarize the manner in which these conversions will be made:

<i>Existing Certificates</i>	<i>Equivalent New Certificates</i>
1. Life certificate where holder has 30 semester hours of credit beyond baccalaureate degree	1. Permanent professional certificates
2. All other life certificates	2. No conversion necessary unless lapsed; then eligible for conversion to equivalent new class of certificate on meeting reinstatement requirements
3. All term certificates in force and based on college degrees ¹	3. Professional certificate, or when conditions are met, permanent professional certificate
a. Names of Certificates Involved	
(1) Superintendents' certificates	
(2) Principals' certificates	
(3) Supervisors' certificates	
(4) Advanced elementary certificates	
(5) Standard secondary certificates	
(6) Advanced secondary certificates	
(7) Special certificates, exclusive of one-year special certificates	
4. All term certificates in force and based on less than college degrees	4. Preprofessional certificate
a. Names of Certificates Involved	
(1) High school normal training certificates	
(2) Uniform county certificates	
(3) Standard elementary certificates	
(4) Special certificates, exclusive of one-year special certificates	
5. All holders of expired certificates	5. Temporary certificate, also equivalent new class certificate when requirements for renewal or exchange have been met

¹Although some certificates named in this category were issued in former years in exchange for old-type certificates based on less than college degrees, the experienced holders of such certificates are always given the same renewal or conversion privileges as younger teachers who secured these certificates on the basis of degrees.

to appropriate members of the staff of the department of public instruction, the reviewing committee shall include representatives of colleges which prepare teachers and of the teaching profession. When a college contemplates major revisions in one or more of its approved programs such revisions may be announced and initiated only after having been approved by the state board.

[Filed July 17, 1957]

CHAPTER 16
CONVERSION OF EXISTING
CERTIFICATES TO EQUIVALENT
NEW CLASSES OF CERTIFICATES¹

16.1 Conversion authorized.

16.2 Conversion tables.

16.1(257) Conversion authorized. The state board of public instruction has authorized the conversion of all existing certificates to the equivalent new classes of certificates outlined in chapter 14.

¹(a) Teachers with certificates in force must have met the requirements for the renewal of such certificates in order to be eligible to convert them into equivalent professional or preprofessional certificates.

(b) Applications for conversion are acceptable within twelve (12) months prior to expiration of certificates now in force.

(c) Permanent professional certificates are immediately available to qualified applicants.

CHAPTER 17

REQUIREMENTS FOR RENEWAL OF
TEACHERS' CERTIFICATES

DIVISION I

MISCELLANEOUS REQUIREMENTS

- 17.1 Renewal application forms.
- 17.2 Fees.
- 17.3 Time for application.
- 17.4 Where credits must be taken.
- 17.5 Recency of credits.
- 17.6 Records of experience.
- 17.7 Continued fitness evidence.
- 17.8 Professional spirit—evidence.
- 17.9 Requirements subject to change.

DIVISION II

TERM RENEWAL REQUIREMENTS

- 17.10 Certificates issued on degrees.
- 17.11 Certificates issued without degree.

DIVISION III

LIFE RENEWAL REQUIREMENTS

- 17.12 Expired certificates.
- 17.13 Standard elementary and five-year special.
- 17.14 Other five-year certificates.
- 17.15 Lapsing of life certificates.

DIVISION IV

SUBSTITUTE CERTIFICATE RENEWAL

- 17.16 Proper use.
- 17.17 Successful teaching.
- 17.18 Limit on use per year.

DIVISION V

TEMPORARY CERTIFICATE RENEWAL

- 17.19 Generally not renewable.

DIVISION I

MISCELLANEOUS REQUIREMENTS

17.1(257) Renewal application forms. Application forms for renewal of certificates may be secured from the department of public instruction, registrars of Iowa colleges, superintendents and county superintendents.

17.2(257) Fees. The fee for the term renewal of a certificate is two dollars; for a life renewal, five dollars. Fees should be sent to the department of public instruction made payable to the superintendent of public instruction.

17.3(257) Time for application. The application and fee for the renewal of a certificate may be filed as early as twelve months prior to expiration date.

17.4(257) Where credits must be taken. Credits earned for the renewal of certificates must be completed in an institution approved by the state board of public instruction. Teachers with sixty or more semester hours of credit on the date of registration for courses to be used for certificate renewal must earn the credits in an approved *senior* college.

17.5(257) Recency of credits. If a certificate is renewed at date of expiration, the credits presented for the renewal of the certificate are acceptable, if earned during the term of the certificate. If a certificate is not renewed at date of expiration, the credits presented for its renewal must have been completed

within the five-year period immediately preceding the date of application for the renewal.

17.6(257) Records of experience. Statements from school officials under whom an applicant has taught are required for renewal of certificates. Appropriate forms for this purpose are provided by the state board of public instruction.

Applicants who have not completed the minimum experience requirements to combine with college credits for the renewal of a certificate and who present additional college credits in lieu of such experience must also file statements from school administrators for such experience as they may have had during the term of the certificate being offered for renewal.

17.7(257) Continued fitness evidence. Such evidence as the state board of public instruction may require showing continued physical and mental health, and moral fitness sufficient for work in the schools must be presented.

17.8(257) Professional spirit—evidence. A person renewing a certificate is required to present such evidence as the state board of public instruction may require showing professional spirit.

The state board has defined the evidence of professional spirit as follows:

17.8(1) Completion of additional college credits as specified since the date of issuance of certificate being offered for renewal.

17.8(2) Adherence to the Code of Ethics for Teachers as adopted by the National Education Association and the Iowa State Education Association.

17.8(3) Attendance at and co-operative participation in institutes and teachers' meetings called by school officials.

17.8(4) Assumption of responsibility for keeping one's own teacher's certificate in force and registered as required by law as long as employed in school work.

17.8(5) Refusal to accept a position for which one is not qualified.

17.8(6) Refusal to aid and abet in any manner the continuance in service of any teacher known to be ineligible for a teacher's certificate.

17.9(257) Requirements subject to change. Renewal requirements are subject to change. The holder of a certificate is responsible for keeping himself informed regarding changes in requirements. While all such changes are widely publicized by the department of public instruction, it is not possible to inform each certificate holder directly whenever such changes are adopted.

All changes in requirements are distributed among city and county superintendents, and college and university departments of education in Iowa. They are also available to any person or institution upon request.

DIVISION II

TERM RENEWAL REQUIREMENTS¹

17.10(257) Certificates issued on degrees.

17.10(1) Names of certificates involved:

- a. Professional certificates
- b. Superintendents' certificates
- c. Principals' certificates
- d. Supervisors' certificates
- e. Advanced elementary certificates
- f. Standard secondary certificates
- g. Advanced secondary certificates
- h. Special certificates, exclusive of one-year certificates

When renewal requirements for these certificates are met, they will be converted to professional certificates.

17.10(2) *General requirements.* Every person renewing a certificate based on a college degree should complete the required college credits in courses related to the increase in competence to do the type of service covered by the certificate being offered for renewal.

17.10(3) *Renewal requirements — additional preparation and experience.* Successful experience in teaching during the term of the certificate as judged by analysis of evidence filed concerning all such experience, but totaling at least eight months; and, in addition thereto, six semester hours of credit earned since the date of issuance of the certificate.

In lieu of the above experience and credit: Eight semester hours of additional college credit.

17.11(257) Certificates issued without degree.

17.11(1) Names of certificates involved:

- a. Preprofessional certificates
- b. High school normal training certificates
- c. Uniform county certificates
- d. Standard elementary certificates
- e. Special certificates, exclusive of one-year special certificates
- f. Limited elementary certificates²

When renewal requirements for these certificates are met, they will be converted to preprofessional certificates.

17.11(2) *General requirements.* Every person renewing a certificate based on less

¹Term renewal requirements are suspended for people sixty years of age or older who hold preprofessional certificates or higher and have had five years (forty months) of successful teaching experience during the term of their certificates being offered for renewal.

²These limited elementary certificates were renewable once only for one three-year term. However, upon completion of 12 additional semester hours of credit at a single institution under the conditions outlined under 17.13(2), they may be converted to preprofessional certificates.

than a college degree must present a statement signed by a registrar of the single, approved institution where the credits for renewal are on record showing the following facts:

a. All credit from other colleges has been received and evaluated in terms of the requirements for the completion of the program leading to a professional certificate.

b. The credits being offered in support of the application for renewal count toward the completion of the requirements for the professional certificate.

17.11(3) *Renewal requirements — additional preparation and experience.* Successful experience in teaching during the term of the certificate as judged by analysis of evidence filed concerning all such experience, but totaling at least eight months; and in addition thereto, six semester hours of credit earned since the date of issuance of the certificate.

In lieu of the above experience and credit: Eight semester hours of additional college credit.

DIVISION III

LIFE RENEWAL REQUIREMENTS²

17.12(257) *Expired certificates.* Certificates that have expired cannot be renewed for life. Any five-year certificate, in force as of December 31, 1953, may be renewed for life on date of expiration by meeting the following requirements.

17.13(257) *Standard elementary and five-year special.*

17.13(1) *Experience.* Five years' successful teaching experience, two of which must have occurred during the term of the certificate offered for life renewal.

17.13(2) *Professional training, growth, spirit.* Evidence of having completed a two-year college curriculum (or a minimum of sixty semester or ninety quarter hours of college credit) recognized by the state board of public instruction, and in addition thereto, at least nine semester or thirteen quarter hours of college credit earned during the term of the certificate to be renewed for life.

17.14(257) *Other five-year certificates.* Five years' successful teaching experience, two of which must have occurred during the term of the certificate offered for life renewal.

17.15(257) *Lapsing of life certificates.*

17.15(1) *Lapsing due to nonuse.* A certificate renewed for life remains in force only as long as the holder permits no five-year period to pass in which he has not been employed in school work for at least eight months in administration, supervision, or teaching. (One hundred sixty days of teaching is considered the equivalent of eight months.)

²After June 30, 1958, life renewals will be available only to people with proper experience who have completed 30 semester hours of preparation in addition to the baccalaureate degree. Because, as outlined in chapter 14, such people will be eligible to receive permanent professional certificates, there will then be no advantage in securing a life renewed certificate of the old type.

17.15(2) Reinstatement of lapsed life certificate for term. A life certificate which has lapsed may be reinstated upon filing eight semester hours of college credit earned in an approved institution within the five-year period immediately preceding the date of application for reinstatement.

A lapsed life certificate is reinstated, not as another life certificate, but as an equivalent term certificate as outlined in chapter 16.

Exception: If the requirements for it are met, the permanent professional certificate will be issued immediately upon meeting the requirements for the reinstatement of a lapsed life certificate.

DIVISION IV

SUBSTITUTE CERTIFICATE RENEWAL

17.16(257) Proper use. Evidence showing that substitute teacher's certificate was used only to take the place of a regularly employed, certificated teacher who actually began the school year.

17.17(257) Successful teaching. Evidence showing that any teaching experience had during the term of the certificate was successful, or recommendation by a superintendent or county superintendent as to continued fitness for teaching.

17.18(257) Limit on use per year. Evidence that not more than ninety days of full-time teaching was done by the applicant during any one school year while the certificate was in force, unless such teaching was covered by a valid certificate or was authorized in writing by an appropriate supervisor in the department of public instruction.

DIVISION V

TEMPORARY CERTIFICATE RENEWAL

17.19(257) Generally not renewable. Except when so stipulated by the conditions under which it is issued, the temporary certificate is not renewable.

This certificate is usually issued only to people who will become holders of a regular term certificate by completing either six or eight additional semester hours of appropriate college credit.

[Filed prior to July 4, 1952]

CHAPTER 18

GENERAL INFORMATION RELATING TO THE APPROVAL OF CERTIFICATED PERSONNEL

- 18.1 Schools to which applicable.
- 18.2 Uncertificated personnel—consequences.
- 18.3 Minimum standards prescribed.
- 18.4 Special advice to officials.
- 18.5 Certificates for certain positions.
- 18.6 Prior service recognized.
- 18.7 Preparation at accredited institution.
- 18.8 Departmental approval statement.
- 18.9 Emergency approval.

18.1(257) Schools to which applicable. Aside from the fact that every rural school must be

taught by a teacher or teachers holding certificates valid for the grade levels included in such schools to which said teachers are assigned, the approval standards stated herein apply to the elementary and secondary schools (including junior colleges) operated by school districts which maintain approved high schools.

18.2(257) Uncertificated personnel—consequences. Any school, rural or otherwise, which does not employ regularly certificated teachers who are qualified for the types of positions held may, under certain conditions, be ineligible for participation in the state distributive funds, and the collection of tuition from non-residents from other districts which do not maintain approved high schools.

18.3(257) Minimum standards prescribed. The department of public instruction recognizes that the requirements outlined herein are minimum standards only. They are not to be accepted as standards for schools which are attempting to give maximum service. In every instance the required preparation should be exceeded by the good teacher. School boards and superintendents must recognize that standards for teaching are rising the country over, and that Iowa standards are relatively low as compared with other states. Iowa teachers, therefore, may expect that requirements will be raised and should govern themselves accordingly.

18.4(257) Special advice to officials.

18.4(1) To school boards. Section 279.14 of the Code, designates the superintendent as the executive officer of the board. Before filling any vacancy at any time, consult your superintendent. *Under no circumstances should a contract be signed unless you are sure the teacher is properly qualified.* If you are not sure the teacher under consideration meets the minimum requirements for the position, call or write the Department of Public Instruction, Des Moines, Iowa 50319.

18.4(2) To superintendents. Be sure to consult these rules before filling any vacancies in your teaching staff. In filling vacancies, call the attention of your school board to the paragraph above so that such vacancies will not be filled with unqualified teachers.

In making assignments of secondary-school teachers it is expected that superintendents will recognize the preparation of the teacher, and require at least twenty semester hours of preparation in any field which constitutes the teacher's major assignment.

18.5(257) Certificates for certain positions. A certificate appropriate for each type of position is required. The following statements are important in this connection:

18.5(1) Certificates authorizing service or teaching at the elementary- and secondary-school levels in specific areas or subjects are not valid for teaching academic subjects not covered by such endorsements.

18.5(2) Certificates for elementary-school teaching are not valid for service above the eighth grade unless so designated by the certificates or the endorsements on them.

18.5(3) No certificates valid for secondary-school teaching may be used below seventh grade unless specific endorsements to that effect appear on them.

18.6(294) Prior service recognized. Any teacher who has been regularly approved for teaching a subject or grade in an approved Iowa school may continue to teach that subject or grade in the same type of Iowa school even though he does not meet the present standards (section 294.2, Code 1954). This privilege is not extended to teachers who have been approved but do not meet the legal requirements; e.g., a holder of a certificate valid only for teaching in the seventh grade or above does not qualify on that certificate for teaching below the seventh grade, even though he may have once taught in kindergarten and grades one through six.

18.7(257) Preparation at accredited institution. In every instance where "preparation or training" of the teacher is mentioned, such preparation or training must be secured in, or validated or evaluated by, a regularly accredited teacher-education institution. Such Iowa institutions are listed in the Iowa Educational Directory, published annually by the department of public instruction. Accredited out-of-state schools are those accredited by the North Central Association of Colleges and Secondary Schools or comparable regional accrediting associations, or the National Council for Accreditation of Teacher Education. Any reference to "hours of preparation" is expressed in semester hours only.

18.8(257) Departmental approval statement. It is the practice of the department of public instruction to issue an official statement to each secondary-school teacher indicating the subjects which that teacher is approved to teach under these standards. Thus, employing officials will know in advance of hiring a teacher whether or not said teacher's qualifications fit the position to be filled. On request, this information will be supplied to any superintendent or school board direct from the department of public instruction.

Each Iowa teacher-preparing institution, approved by the state board of public instruction, shall outline the courses or levels of adequacy which its students must attain in order to be recommended for approval to teach in the various subject-matter areas. After the state board of public instruction has officially accepted said outline from an institution, the teacher prepared at said institution shall be approved only when said courses or levels of adequacy shall have been completed or attained as attested to by said institution even though said courses or levels of adequacy exceed the minimum approval standards outlined herein. When a teacher's record of credits

from a college outside Iowa is filed for evaluation to determine said teacher's areas of approval, said record shall be interpreted for each teaching area in a manner consistent with standards typical of those filed by Iowa colleges and officially accepted by the state board of public instruction.

18.9(257) Emergency approval. The superintendent of public instruction shall, at his discretion, extend temporary approval in emergency situations to certificated teachers who are making annual progress to his satisfaction toward meeting the regular approval standards outlined herein.

[Filed July 17, 1957]

CHAPTER 19

REQUIREMENTS FOR EACH TYPE OF POSITION

DIVISION I ADMINISTRATION

- 19.1 Superintendent and assistant.
- 19.2 Secondary principal and assistant.
- 19.3 Elementary principal and assistant.

DIVISION II SUPERVISION

- 19.4 Definition of supervisor.
- 19.5 Secondary supervisor (not in special subjects).
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- 19.7 Elementary-secondary supervisor (special subjects or special services).

- #### DIVISION III HIGH SCHOOL AND JUNIOR COLLEGE TEACHERS
- 19.8 Grades seven through twelve.
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- #### DIVISION IV SPECIAL SUBJECT TEACHERS
- 19.10 Art, music, industrial arts and physical education.
 - 19.11 Teachers in special service.

- #### DIVISION V ELEMENTARY SCHOOL TEACHERS
- 19.12 Certificate.
 - 19.13 Preparation.
 - 19.14 Experience.
 - 19.15 Approval for teaching.

- #### DIVISION VI LIBRARIANS
- 19.16 Certificate.

- #### DIVISION VII GUIDANCE
- 19.17 Qualifications for guidance personnel.

- #### DIVISION VIII PUBLIC SCHOOL HEALTH NURSES
- 19.18 Requirements.

- #### DIVISION IX OTHER SERVICES
- 19.19 Certification.

DIVISION I ADMINISTRATION

- 19.1(257) Superintendent and assistant.¹**

¹The superintendent of a public school system which maintains a junior college must hold a master's degree and must have preparation in educational administration, and supervision or curriculum.

19.1(1) Certificate.

a. Superintendent's certificate, or professional or permanent professional certificate endorsed for service as superintendent.

b. Life validated old-type state certificate accepted for those previously approved as superintendent on such certificate.

19.1(2) Preparation. As prescribed for one of the above certificates.

19.1(3) Experience. As required to qualify for the certificate.

19.1(4) Approval for teaching. Superintendents are eligible to teach at either the secondary or elementary level, or both. However, they are limited in their teaching schedule the same as are other teachers; i.e., they must meet the preparation standards, or previous experience required of classroom teachers. Superintendents teaching special subjects may teach at either the secondary or the elementary level or both, but must meet the training requirements prescribed for the teachers at each level at which teaching is done. Any new combination of superintendent and vocational agriculture will not be approved. Any combination of duties or an overload of teaching and study hall assignments which consumes more than one-half of the superintendent's time is viewed with disfavor. Ample time in the day's routine must be allotted for administrative procedures and direct supervision of the school's personnel.

19.2(257) Secondary principal and assistant.²**19.2(1) Certificate.**

a. Secondary principal's certificate, or professional or permanent professional certificate endorsed for service as secondary-school principal.

b. Life validated old-type state certificates accepted for those previously approved.

19.2(2) Preparation. As prescribed for above certificates.

19.2(3) Experience. As required to qualify for the certificate.

19.2(4) Approval for teaching. Secondary-school principals are limited in their teaching schedule the same as are teachers; i.e., they must meet the preparation standards or previous experience required of classroom teachers at the secondary level.

Note: The standard and advanced secondary certificates are not valid for any principalship. Only teachers holding secondary-school principal's certificates or professional certificates endorsed for service as secondary-school principal may be designated as principal in any listings of the school's personnel. No teacher shall be assigned or designated as acting principal unless he holds a valid certificate for the principal's position.

19.3(257) Elementary principal and assistant.**19.3(1) Certificate.**

a. Elementary principal's certificate, or professional or permanent professional certificate endorsed for service as elementary principal.

b. Life validated old-type state certificate accepted for those previously approved as elementary-school principal.

19.3(2) Preparation. As prescribed for above certificates.

19.3(3) Experience. As required to qualify for the certificate.

19.3(4) Approval for teaching. Any grade or subject at the elementary level, or, when so designated on the certificate, subjects in the ninth grade.

Note: The standard and advanced elementary certificates are not valid for any principalship. No teacher shall be assigned or designated as acting principal unless he holds a valid certificate for the principal's position.

DIVISION II
SUPERVISION

19.4(257) Definition of supervisor. A supervisor is defined as one who spends more than half time supervising the teaching of some particular subject or subjects, or a combination of such supervision and the preparation of outlines, directions, or performs services for those working under his supervision. The work of a supervisor may be done on the high school level or on the elementary level or on any combination of elementary and secondary supervision.

19.5(257) Secondary supervisor (not in special subjects).**19.5(1) Certificate.**

a. Superintendent's or secondary principal's certificate; or professional or permanent professional certificate endorsed for service as superintendent or secondary principal.

b. Certificate for supervision of the subject involved.

c. Life validated old-type state certificate accepted on which the supervisor may have been previously approved in this position.

19.5(2) Preparation. As prescribed for above certificates.

19.5(3) Experience. As required to qualify for the certificate.

19.5(4) Approval for teaching. Any secondary subject in which the supervisor meets approval standards for teachers on preparation as prescribed in this bulletin.

19.6(257) Elementary supervisor (not in special subjects).**19.6(1) Certificate.**

a. Superintendent's certificate, or professional or permanent professional certificate endorsed for service as superintendent.

²A secondary-school principal or teacher who serves as a dean or junior college administrator must hold a master's degree and must have preparation in educational administration, and supervision or curriculum.

b. Elementary supervisor's certificate or professional or permanent professional certificate endorsed for elementary-school supervision.

c. Life validated old-type state certificate accepted for persons previously approved as elementary supervisor on this certificate.

19.6(2) Preparation. As prescribed for above certificates.

19.6(3) Experience. As required to qualify for the certificate.

19.6(4) Approval for teaching. Any grade or elementary subject, and, if so designated on the certificate, subjects in the ninth grade in which approval standards have been met.

19.7(257) Elementary-secondary supervisor (special subjects or special services).

19.7(1) Certificate.

a. Supervisor's certificate, or professional or permanent professional certificate endorsed for supervision of the special subject or special service concerned.

b. Life validated old-type state certificate on which the teacher has been previously approved as a supervisor in the special subject or special service area concerned.

19.7(2) Preparation. As prescribed for above certificates.

19.7(3) Experience. As required to qualify for the certificate.

19.7(4) Approval for teaching. The special subject concerned at any level.

DIVISION III

HIGH SCHOOL AND JUNIOR COLLEGE TEACHERS

19.8(257) Grades seven through twelve. The specific requirements outlined herein give the approval standards for teachers of various subjects in grades nine through twelve. To be approved for teaching any subject in these grades the teacher must hold a certificate¹ valid for these grades and have the minimum number of college credits specified for each subject. Specific credits in seventh- and eighth-grade subjects taught are not required, except in special subjects and special service areas as outlined in Division IV of this chapter.

19.8(1) Agriculture.

a. *General agriculture.* Ten semester hours in agriculture.

b. *Vocational agriculture.* Completion of a four-year curriculum in an institution² approved by the state board of public instruction and the United States office of education of the department of health, education, and welfare.

19.8(2) Art (see Division IV).

¹In addition to certificates of current issue which state specifically the grades for which they are valid, life validated old-type state certificates on which the teacher has been previously approved continue to be honored.

²Iowa State University, Ames, is the only institution in Iowa which is designated and approved to prepare teachers in vocational agriculture.

19.8(3) Business education. Each teacher to be approved in any subject in the field of business education shall have completed a total of fifteen semester hours in said field and shall also meet the specific requirements for each subject as follows: (a) For approval in bookkeeping, the teacher shall have completed a college course in accounting or its equivalent; (b) for approval in shorthand and typewriting, the teacher shall have completed an advanced college course for credit in each such subject to be taught; (c) for approval in business arithmetic, the teacher shall have met the approval standard either in bookkeeping or mathematics; (d) for approval in business law, the teacher shall have completed a college course in said subject; (e) for approval in office practice, the teacher shall have met the approval standard in typewriting or bookkeeping; (f) for approval in secretarial practice, the teacher shall have met the approval standards in shorthand and typewriting; (g) for approval in general business training, the teacher shall have completed fifteen semester hours in any single business-education course or combination thereof; (h) for approval in additional business subjects such as consumer education, salesmanship, or retailing, the teacher shall have completed some preparation in the subject to be taught.

19.8(4) Distributive education (vocational). Supervisors, co-ordinators, and teachers of distributive education shall have completed a curriculum in business education in an institution³ approved by the state board of public instruction and the United States office of education of the department of health, education, and welfare, and shall have had work experience in the field of business education as set forth in the Iowa state plan for vocational education.

19.8 Driver education and safety. Ten semester hours in the field of safety education, including two semester hours in actual behind-the-wheel driving.

19.8(6) English, speech and journalism.

a. *English.* Fifteen semester hours in the field, with specific preparation in each subject taught, except that, provided a teacher has a broad and diversified preparation in the field of at least twenty-four semester hours, he may be approved for teaching all English except that, on and after August 31, 1958, fifteen semester hours shall be required in the English field, with specific preparation required in each English subject taught, except that, provided a teacher has had a broad and diversified preparation in the English field of at least thirty semester hours, he shall be approved for teaching all typical high-school subjects in English and also such additional specialized English courses to which said teacher might be assigned.

b. *Speech and journalism.* Ten semester hours shall be required in the speech field

³The Iowa institutions which are designated and approved for preparing teachers in distributive education are Iowa State University, Ames; University of Northern Iowa, Cedar Falls; and University of Iowa, Iowa City.

except that a teacher who shall have completed fifteen semester hours in the English field shall be approved to teach speech with only six semester hours having been completed by said teacher in the speech field.

Ten semester hours shall be required in the journalism field except that a teacher who shall have completed fifteen semester hours in the English field shall be approved to teach journalism with only six semester hours having been completed by said teacher in the journalism field.

Note: A teacher approved in English is permitted to teach units dealing with speech and journalism in regular English classes to which this teacher is assigned.

Anyone who teaches a separate course in speech or journalism must meet the standards as outlined in "b" above.

19.8(7) *Homemaking.*

a. *General homemaking.* Twenty semester hours in homemaking.

b. *Vocational homemaking.* Completion of a four-year curriculum in home economics education in an institution¹ which has been approved by the state board of public instruction and the United States office of education of the department of health, education, and welfare for the training of teachers in reimbursed programs in home economics.

19.8(8) *Industrial arts.* Fifteen semester hours in industrial arts, provided the preparation is general.

Note: Fifteen semester hours in mechanical drawing only would not suffice for the approval of a teacher of industrial arts. It would qualify him for teaching mechanical drawing at the secondary-school level.

A certificate valid for teaching industrial arts in elementary-secondary grades is now available in recognition of broad preparation in the field. Such a certificate, or two certificates (one elementary, one secondary), must be held by teachers whose program includes both elementary and secondary pupils.

19.8(9) *Languages (exclusive of English).* Fifteen semester hours in the language taught. Three semester hours of credit given for two years of high school training in the language taught.

19.8(10) *Mathematics.* Fifteen semester hours in the field. One semester hour of credit given for advanced algebra, trigonometry, or solid geometry pursued in high school with a maximum of three semester hours.

19.8(11) *Music (see Division IV).*

19.8(12) *Physical education (see Division IV).*

19.8(13) *Science.* Fifteen semester hours in science with some preparation in the subject taught. Teachers will be approved for teaching all sciences if they have twenty-four semester

hours of preparation in the area, including work in physical and biological science except that, on and after August 31, 1958, fifteen semester hours shall be required in the science field and six semester hours shall be required in each science subject taught, except that, provided a teacher has had thirty semester hours of preparation in science including credits in chemistry, physics and biological science, he shall be approved to teach all typical high-school subjects in science.

Note: Teachers will be approved for teaching biology if, in lieu of hours in biology, they present hours in zoology and botany.

Teachers will be approved to teach general science if they present hours in physical science and a biological science background. In any case the total semester hours of science must be fifteen or more.

19.8(14) *Social studies.* Fifteen semester hours in the field and some preparation in the subject taught, except that, provided a teacher has a broad and diversified preparation in the field of social studies (a total of at least twenty-four semester hours including some hours in history and American government and at least one other subject of the social studies area), he may be approved for all subjects in history and social studies.

On and after August 31, 1958, fifteen semester hours shall be required in the social science field and six semester hours of preparation shall be required in each subject in the social-studies subject taught, except that, provided a teacher has had thirty semester hours of preparation in social science including credits in American history, history other than American, government including American, economics, and sociology, he shall be approved to teach all typical high-school courses offered in history and social studies. Credits in American history and in history other than American shall be included in the minimum of six semester hours required of a teacher for approval to teach world history.

For approval to teach the combination-type course commonly taught in many high schools under titles such as modern problems or problems of American democracy, the teacher shall have completed some college credit classifiable as American history, American government, economics and sociology.

19.8(15) *Trade and industrial classes.* Instructional staff members in the field of trade and industrial education must meet the requirements as outlined in the Iowa state plan for vocational education. When specific professional training is required, this training must be taken in an institution approved by the state board of public instruction and the United States office of education of the department of health, education, and welfare.

19.9(257) *Grades thirteen and fourteen (junior college).* Junior college instructors must hold certificates which are valid for teaching in grades thirteen and fourteen.

¹Iowa State University, Ames, is the only institution in Iowa which is designated and approved to prepare teachers in vocational homemaking.

Junior college instructors, those in service as well as additions to the staff, are encouraged to have preparation in junior college philosophy and teaching methods, and in counseling and guidance at the college level.

19.9(1) Academic fields except those listed under 19.9(2) and 19.9(3) following. Master's degree from a recognized graduate school and ten semester hours of graduate credit in each of the fields in which instruction is given.

19.9(2) Special fields.

a. Art. Master's degree in art from a recognized graduate school; or, in lieu thereof, a certificate valid for teaching art in the elementary-secondary grades.

b. Music. Master's degree in music from a recognized graduate school; or, in lieu thereof, a certificate valid for teaching music in the elementary-secondary grades.

c. Physical education. Master's degree in physical education from a recognized graduate school; or, in lieu thereof, a certificate valid for teaching physical education in elementary-secondary grades.

d. A person serving as librarian for half time or less shall have completed twenty semester hours of preparation in library science; or, in lieu thereof, said person shall hold a certificate endorsed for service as a school librarian; a person serving as librarian for more than half time shall have completed a master's degree in library science, and said person shall hold a certificate endorsed for service as a school librarian.

19.9(3) Other fields.

a. Accounting. Master's degree from a recognized graduate school with fifteen semester hours of graduate or undergraduate credit in accounting.

b. Engineering drawing. Bachelor's degree with eight semester hours as is required in a basic curriculum in mechanical engineering.

c. Shorthand and typewriting. Master's degree from a recognized graduate school with either a graduate or an undergraduate major in the field of commerce, and with not less than five semester hours of graduate or undergraduate credit in each of these subjects.

d. Speech. Master's degree from a recognized graduate school with ten semester hours of graduate or undergraduate credit in courses in speech, one-half of which must be in speech, as distinguished from dramatic art.

e. Teacher education. Master's degree from a recognized graduate school with ten semester hours of graduate credit in elementary education.

f. Terminal or nontransfer courses.¹ Appropriate preparation for each course taught as determined by the official in the department

¹Where teachers approved for giving instruction in non-transfer courses are not certificated for teaching in junior college (grades thirteen and fourteen), a regulation exists whereby, with the concurrence of the Division of Vocational Education of the Department of Public Instruction, an approval certificate can be issued. For information, write to the Division of Teacher Education and Certification, Department of Public Instruction.

of public instruction who supervises junior colleges.

DIVISION IV
SPECIAL SUBJECT TEACHERS

19.10(257) Art, music, industrial arts and physical education. Schools which have a regularly approved special program operating under a fully qualified teacher holding a certificate valid for teaching the special subject in elementary-secondary grades may assign minor activities in the special field to other teachers who, on the basis of preparation and proficiency in the field, may be approved by the regional supervisor provided these teachers are certificated for the level on which they teach. The department of public instruction makes no distinction for approval purposes between physical education and athletics; between curricular and extra-curricular activities; or between credit and noncredit courses. If the teacher directs pupils in any part of the school program, it is assumed that he is paid for such service and he must meet approval standards.

19.10(1) High school only. The teacher of a special subject in high school only or in junior high school only shall hold a certificate valid for teaching at the grade levels involved and shall have completed thirty semester hours of preparation in the special subject. Temporary annual approval will be granted an applicant who has completed fifteen semester hours of work in such special subject, provided that he undertakes to complete an additional fifteen semester hours at an approved institution within a period of three years and furnishes evidence with each annual renewal application that he has completed or is enrolled in five or more semester hours of work in such year.

19.10(2) Elementary grades only. The teacher of a special subject in the elementary grades only shall hold a certificate valid for teaching in the elementary grades and shall have completed preparation in the special subject in the same amount and manner as is required for a high school teacher in 19.10(1).

19.10(3) Both high school and elementary grades. Certificate or certificates valid for general teaching at both the elementary and secondary levels with the number of credits in the special subject concerned as outlined in 19.10(1) and 19.10(2) above; or, in lieu thereof, a certificate valid for teaching the special subject concerned in elementary-secondary grades.

Note: Neither a certificate valid for secondary nor elementary teaching alone is valid in this situation, regardless of the amount of preparation.

19.11(257) Teachers in special service. See chapter 14 for the special service areas in which certification is available. With the exception of librarians and public school health nurses, these special service areas are concerned with the education of exceptional chil-

dren (special education). See Divisions VI and VIII for further comment about librarians and nurses.

Any person who works in the schools in the field of special education must hold appropriate special service certification in order for the program to be approved for reimbursement by the department of public instruction.

DIVISION V
ELEMENTARY SCHOOL TEACHERS

19.12(257) Certificate. Teachers in the elementary school must be certificated for the elementary-school teaching. Life validated old-type state certificates on which the teacher has been previously approved for elementary-school teaching are accepted.

First grade uniform county and high school normal training certificates are accepted.

In all other cases, when a certificate is valid for elementary-school teaching, it is so stated on the certificate.

19.13(257) Preparation. As prescribed for the certificate, except that any one of the certificates must be accompanied by at least thirty semester hours of college preparation including eight semester hours in education, three semester hours of which shall be in elementary methods except that, on and after August 31, 1958, one hundred twenty semester hours of preparation including twenty semester hours in education, six semester hours of which shall be in methods of teaching and evaluating pupil progress in the area of instruction included in the elementary-school curriculum shall be required of a teacher for approval; and sixty semester hours of college preparation including eight semester hours in education, three of which shall be in elementary methods, shall be required for temporary approval of a teacher provided that said temporary approval shall be continued for successive one-year terms upon the completion by said teacher of additional preparation yearly equivalent to six semester hours until a bachelor's degree has been secured; and except that on and after August 31, 1960, one hundred twenty semester hours of college preparation and a bachelor's degree including twenty semester hours in education, six semester hours of which shall be in methods of teaching and evaluating pupil progress in the area of instruction included in the elementary-school curriculum shall be required for approval of a teacher.

19.14(257) Experience. None.

19.15(257) Approval for teaching. Any or all of the elementary subjects in kindergarten, and grades one through eight, and subjects in grade nine when the certificate is so endorsed, except the special subjects outside of grades for which the teacher may be completely responsible. [See 19.10(2).]

Note: Teachers now on a temporary approval basis will be continued on such temporary approval as long as they progress toward and until they acquire the thirty semester hours

required for regular approval. Superintendents are reminded that no original elementary certificate is now issued for term on less than sixty semester hours of preparation. Approval standards will undoubtedly rise as the certification requirements call for increased preparation. Teachers holding certificates valid for high-school teaching only are not eligible to teach any subject in grades below the seventh.

No cadet teacher or practice teacher of a teacher-training institution shall serve as a substitute teacher unless he holds a valid certificate.

DIVISION VI
LIBRARIANS

19.16(257) Certificate. On and after August 31, 1958, a person approved for service as a teacher-librarian for half-time service or less shall hold a certificate valid for either or both elementary- and secondary-school teaching, and also shall have completed nine semester hours in library science, three semester hours in children's literature and three semester hours in methods and materials of audio-visual instruction.

On and after August 31, 1958, a person approved for service as a school librarian devoting more than half time to such service shall hold a certificate endorsed for service as a school librarian in the elementary- and secondary-school grades.

DIVISION VII
GUIDANCE

[Rule 19.17(257) was filed by the Board of Public Instruction.]

19.17(257) Qualifications for guidance personnel.

19.17(1) Elementary level. For endorsement or approval as an elementary school guidance counselor, the applicant shall have met the requirements for a professional certificate and, in addition thereto, shall possess a master's degree in guidance and counseling from a recognized institution, based upon an approved program of study in which emphasis was placed upon guidance and counseling at the elementary-school level, which program included supervised guidance and counseling experience under the supervision of such institution, or actual experience recognized as the equivalent thereof by such institution. Applicant shall also present evidence of successful teaching experience.

19.17(2) Secondary level. For endorsement or approval as a secondary school guidance counselor, applicant shall have met the requirements for a professional certificate and, in addition thereto, shall possess a master's degree in guidance and counseling from a recognized institution, based upon an approved program of study in which emphasis was placed upon guidance and counseling at the secondary level, which program included supervised guidance and counseling experience under the supervision of such institution, or actual experience recognized as the equivalent

thereof by such institution. Applicant shall also present evidence of successful teaching experience.

19.17(3) Elementary-secondary-level. For authorization by endorsement to serve as guidance counselor in kindergarten and in grades one through fourteen, the applicant must possess a current valid professional certificate endorsed for teaching at either the elementary- or secondary-school level and, in addition thereto, must possess a master's degree and have completed an approved graduate program of at least forty-five semester hours for the preparation of guidance counselors, which program may include courses completed in fulfillment of the requirements for said master's degree and shall include supervised counseling experience at both elementary- and secondary-school level. In addition, the applicant shall present evidence of successful teaching experience.

19.17(4) Director of guidance services. For authorization by endorsement to serve as a director of guidance services in kindergarten and grades one through twelve, the applicant must meet the qualifications for a school guidance counselor and, in addition, shall have completed an additional approved graduate program of at least thirty semester hours in guidance and counseling in kindergarten and grades one through twelve and in the administration and supervision of guidance programs. The applicant shall also present evidence of successful practical experience in guidance and counseling at both elementary and secondary level.

[Filed July 17, 1957]

DIVISION VIII PUBLIC SCHOOL HEALTH NURSES

19.18(257) Requirements. Nurses who teach hygiene and allied subjects must be certificated for public school nursing or for the grade level or levels in which such subjects are taught. It is recommended that public school health nurses—whether they teach hygiene and allied subjects or not—shall have had one year on a staff where qualified public health nursing supervision was given.

Nurses who do no teaching are not required to hold a teacher's certificate, but they must all be registered by the Iowa board of nurse examiners.

DIVISION IX OTHER SERVICES

19.19(257) Certification. Standards for many other services involving the characteristics expected of the teacher and offered by schools are not yet developed. However, every person having any planning or teaching function to perform in connection with these services is expected to hold a certificate valid for the level at which the service is rendered.

[Filed July 17, 1957; amended October 31, 1967, September 18, 1969]

CHAPTER 20

RECIPROCITY AGREEMENT OF CENTRAL STATES CONFERENCE OF STATE DEPARTMENTS OF EDUCATION

20.1(257) Form of agreement. The state ofhereby agrees, for a period of three years, beginning....., 19..., to issue certificates to applicants from all states which are signatory to this agreement on the following basis:

20.1(1) The processes involved in the issuance of certificates under reciprocity will be administered by the certification officials of the respective state departments of education.

20.1(2) Each teacher receiving a reciprocity certificate will have completed at least a four-year program of teacher education in a college or university recognized, approved, or accredited by the state department of education in the state in which the institution is located and by the National Council for Accreditation of Teacher Education at the time of completion of the program.

20.1(3) Each applicant shall have completed at least one year of successful teaching or eight semester hours' credit during the five-year period immediately preceding the date of application to be eligible for a reciprocity certificate.

20.1(4) Each applicant shall have completed a course in American history or government or some other course of equivalent content.¹

20.1(5) The reciprocity certificate issued shall be valid only for the area or areas of instruction, and at the level or levels of instruction, for which certification was granted by the state from which transfer is to be made.

Minimum field and subject requirements shall be as follows:

a. Twenty-four semester hours in the field, with six semester hours or its equivalent in the particular subject taught:

social science	industrial arts
English	home economics
science	health
business	physical education

b. Twenty-four semester hours in the field—no specific requirements in the subject: All fine arts other than music.

c. Twenty-four semester hours in the field—fifteen semester hours in the specific subject:

All foreign languages.

d. Eighteen semester hours in the field—no requirement in the specific subject:

All mathematics.

e. Forty-five semester hours in the field—no requirement in the specific subject:

All music.

20.1(6) Each applicant shall have the favorable recommendation of the certification

¹See section 13.15(257) for information regarding the temporary certificate which is available to otherwise qualified applicants who do not have credits in American history or government.

officer of the state from which transfer is made to be eligible for a reciprocity certificate.

20.1(7) Each teacher, in order to obtain a reciprocity certificate shall:

a. Have met the requirements for certification in the state in which the program of teacher education is completed; or

b. Have taught successfully at least one year in the state from which transfer is being made after completing a four-year program of teacher education in any college approved under this agreement.

20.1(8) Certificates suspended or revoked in one state may, within the limits of legal authority, be suspended or revoked in all other states which are signatory to this agreement.

20.1(9) Each applicant for a reciprocity certificate shall comply with all requirements of the receiving state regarding filing of application, fees, age, citizenship, health and other similar requirements.

20.1(10) The reciprocity certificate shall be of a kind and for a term comparable to that granted regularly by the receiving state for the completion of a four-year program of professional preparation to teach classes other than subjects commonly classified as vocational. Emergency, temporary or other types of substandard certificates shall not be issued under the provisions of this agreement. This agreement does not include administrative positions (supervisors, principals, or superintendents).

20.1(11) When participating states have statutory or regulatory requirements which cannot be waived, it is understood that such requirements shall not invalidate the other parts of this agreement, provided they do not exceed six semester hours of college credit.

Note: It is desirable in such cases to issue a temporary certificate, valid for one year, so that reasonable time will be allowed for the applicant to meet these requirements.

20.1(12) Whenever authorized officials from two or more states sign this agreement it shall become effective immediately in such states.

Date....., 19.....

.....
(Signature, chairman, controlling board)

.....
(Address)

and/or

.....
(Signature, chief state school officer)

.....
(Address)

[Filed prior to July 4, 1952]

CHAPTER 21

PROPER EXPENDITURE OF IMPROVEMENT OF INSTRUCTION FUNDS

21.1 Terms defined.

21.2 Reimbursable activities.

21.3 Nonreimbursable items.

21.4 Claims procedure.

21.1(272) Terms defined. In setting up criteria for reimbursement of an improvement of instruction program, it seems logical to state what the term "Improvement of Instruction" shall be considered to mean.

21.1(1) Improvement of instruction shall mean that, through the media listed below, teachers shall be so instructed that they in turn shall be expected to improve their own teaching in the classroom; that from this instruction they shall become more proficient in teaching techniques, in specific subject matter taught in their classrooms, in developing skills, in handling children, in organizing classrooms and classroom procedures, in using state handbooks, in making better and wider use of teaching materials, in wise selection of teaching materials, in remedial teaching programs, and in follow-up work after a testing program where testing was done for purposes of diagnosis and remedy.

21.1(2) Improvement of instruction shall be differentiated from: Improvement of administration, improvement of organization, improvement of transportation.

21.1(3) Improvement of instruction shall be differentiated from: Discussion of teachers' salaries, teachers' group insurance, recruitment of teachers, professional ethics, membership in professional organizations, legislation, or extra-curricular activities.

21.1(4) Improvement of instruction shall be differentiated from: A testing program where tests are made purely for survey purposes to satisfy curiosity of local administrators or teachers.

21.1(5) Improvement of instruction shall be differentiated from: Speeches of general inspiration, talks by sales persons, talks by representatives of local organizations (in general), and viewing moving pictures of a general recreational nature.

21.2(272) Reimbursable activities.

21.2(1) County institutes.

a. Multiple county institute directed by the department of public instruction.

b. County institute directed by the county superintendent after previous approval of the program by the department of public instruction.

21.2(2) Study centers. Directed by the county superintendent and under the leadership of competent speakers, or demonstrators, approved by the department of public instruction, and in which the subject matter shall be the curriculum handbooks prepared by the department of public instruction.

21.2(3) Workshops. Directed by the department of public instruction or the county superintendent, and under the leadership of persons previously approved by the department of public instruction for that work.

21.2(4) Testing programs. Directed by the county superintendent as a part of a countywide activity necessary for the proper conduct of a well defined remedial program of instruction.

21.2(5) Supply of handbooks. When purchase is necessary beyond the quota furnished free of charge by the department of public instruction.

21.2(6) Miscellaneous. Any activity or procedure which has previous approval of the supervisor concerned.

21.3(272) Nonreimbursable items. Recognizing that many of the following items may have definite value for teachers, it is yet felt necessary to exclude the expense connected with them from approval for reimbursement.

21.3(1) Speakers on general inspirational themes.

21.3(2) Speakers on topics of general information.

21.3(3) Speakers on teachers' welfare, ethics, organization, or activities.

21.3(4) Speakers at eighth grade commencement exercises.

21.3(5) Speakers, group leaders, or demonstrators drawn from the group concerned with the meeting.

21.3(6) Expenses of instructors to the county superintendents' conferences called by the state department of public instruction.

21.3(7) Expenses of delegates, or the county superintendent, to any conference or meeting.

21.3(8) Materials or literature supplied to the schools for general promotion of good schools.

21.3(9) Any item the major nature of which is administrative.

21.3(10) Tests for purely administrative purposes.

21.3(11) Library or supplementary instructional books and supplies.

21.3(12) Supplies used in a program conducted by the division of special education, or any other division which has its own budget set up for the conduct of its program.

21.3(13) Any item not clearly and directly identified with improvement of instruction as defined above.

21.4(272) Claims procedure. For approval of programs and speakers, study center leaders or demonstrators, confer with the supervisor in charge of your area previous to any final or definite arrangement.

Under the regulations as established by the department all claims must be presented on proper blanks, to be supplied, itemized to show to whom the money was paid and for what service. Itemized claims must be approved by the supervisor.

[Filed prior to July 4, 1952]

**TITLE XII
TRANSPORTATION**

CHAPTER 22

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DIVISION I
DESIGNATIONS

22.1(285) Area designations.

22.1(1) To avoid the necessity for making a new set of designations each July and to conform to the provisions of section 285.4(3), it is necessary that designations be set up on a territorial basis.

22.1(2) The designation form must carry a geographic description of the territory included, rather than a list of the homes involved. Home numbers may be included only when a section is split or divided between two or more receiving schools.

22.1(3) When feasible, the designations shall be set up so as to avoid placing the boundary of the designation area on geographic section lines if a public, traveled road is involved. The area shall be clear cut with definite boundaries.

When the road situation, or the density of population and diversity of choice of school requires it, a designation area boundary line may be approved on a public road.

22.1(4) Separate designation forms shall be used for high school and elementary areas. Use form TR-F-1 for the high school designations. Use form TR-F-2 for the elementary designations.

22.1(5) Elementary designations are not to be made if the school in the district is open. If the school is closed by action of the board prior to July 15 of any year, the designation is to be made as provided in section 285.4(3). If the school is closed after July 15, the designation is to be made as provided in sections 279.16, 279.17, and 285.4 of the Code.

22.1(6) In ascertaining the wishes of the majority of the patrons in regard to the designations, the board shall count only those families with children of school age.

Only those families who are directly involved in the decision are to be counted.

The guiding principle shall be to satisfy the wishes of as many of the patrons as possible while providing a reasonable and legal transportation program.

A district may be split so that it is designated to two or more receiving schools.

22.1(7) Distance between schools shall not be a major factor in determining the boundary of designation areas.

22.2(285) Special designation.

22.2(1) To further implement the principle stated in 22.1(6) above, the special designation (Form TR-F-3) has been set up to provide for families whose homes are in one designation area but who have been sending their children, in the past, to a school in another designation area. The special designation may also be considered by boards to provide for families with curricular or other problems which necessitate sending their children to a school other than that regularly designated.

22.2(2) The special designation covers one family only and should list the family name and home number, also the names of the children.

22.2(3) The special designation covers the family only during the time it remains in the home occupied at the time the designation is made. The home will revert to the original designation when the family moves away. Families moving from one home to another will be expected to send their children to the school to which the new home is designated if transportation aid is desired.

22.2(4) Special designations are to be considered only upon the request of the family or board involved.

22.2(5) Where bus transportation is available the special designation should be limited to homes which are within three-fourths of a mile of the bus route because of the extra expense involved. However, a family may waive the right to compensation for transporting their children beyond three-fourths of a mile to meet a bus.

22.2(6) Designation areas shall be set up so as to require the least possible number of special designations. It is generally not necessary to have special designations on the extreme border of the designation area. Place the boundary line to include these families whenever it can be done without causing bus route difficulties.

22.2(7) Four copies of each designation, both area and special, are to be made up. After official county board action has been taken all copies are to be forwarded to the department of public instruction.

22.3(285) Changing designations.

22.3(1) Either local boards or parents may request a change in existing designations to be effective at the beginning of the next fall term.

22.3(2) Before making a request to the county board for a change the local board shall determine the desires of all the parents of children of school age in the area of proposed

change. A majority of the parents concerned must desire the change.

22.3(3) When parents desire a change of designation they may make written request for the change, on or before July 5, to the president of the local board, stating their reasons for making the request. All interested parents should sign the request.

22.3(4) Parents should be encouraged to take all problems regarding change of designation to their local board of education. If the local board fails to act by July 10, the parents shall file the request for a change directly with the county board on or before July 15.

22.3(5) The local board, in considering the request for change, shall meet in session and permit all parents to be affected by the change to attend the meeting. After all facts have been heard the local board shall either grant or deny the request. The decision must be made on facts presented and must be in accord with legal requirements and restrictions.

The local board shall certify action taken to the county board on or before July 15.

22.3(6) Solicitation by school officials or their representatives in territory designated to another school is prohibited. Parents are to be given opportunity to express their wishes but shall not be subjected to direct solicitation or pressure from outside groups. Requests for changes in designations which come about because of solicitation shall not be approved.

DIVISION II BUS ROUTES

22.4(285) Intracounty routes.

22.4(1) Bus routes within the boundaries of transporting districts as well as within designated areas must be as efficient and economical as possible under existing conditions. Duplication of service facilities shall be avoided insofar as possible.

22.4(2) A route shall provide a load of at least seventy-five percent capacity of the bus.

22.4(3) An official route shall not be so long as to require a high school pupil to ride on the bus more than seventy-five minutes, nor an elementary pupil more than fifty minutes. (These limits may be waived upon request of the parents.)

22.4(4) Pupils whose residence is within two miles of a bus route are within the area served by the bus and are not eligible for parent or private transportation at public expense, to the school served by the bus, except as follows:

a. Bus is fully loaded.

b. Physical handicap makes bus transportation impractical.

22.4(5) Transporting districts shall arrange routes to provide the greatest possible convenience to the pupils. Distance pupils who are required to transport themselves to meet

the bus shall be kept to the minimum consistent with road conditions, uniform standards and legal requirements for locating bus routes.

22.4(6) Bus routes shall not be approved for a school district when such approval will encompass an area within which all students and their parents desire to attend another school, provided that the chosen school can serve the area efficiently.

22.4(7) A bus route may not be extended outside the designated area to give service to a pupil covered by special designation when such extension will cause duplication with the approved route of the other school operating in its own designated area.

22.4(8) In emergency situations, or when road conditions require it, a bus route may be approved temporarily to pass through a portion of an adjoining designation area, provided duplication of bus routes is not caused thereby. Such approval shall be considered very carefully and given only if clearly indicated by the situation. Approval shall be indicated on the bus route map by a broken line.

22.4(9) Transporting school districts shall file application for approval of bus routes with the county board of education not later than August 5.

Such application shall include a written geographical description of the route and a map of the area with the requested route plainly shown thereon. A list of the pupils to be transported, with house numbers and the township in which the homes are located, shall accompany the application. Four copies of estimated cost of transportation (TR-F-13) should also be submitted.

22.5(285) Intercounty routes.

22.5(1) The superintendent of the transporting school district shall submit application for intercounty bus route on form TR-F-22 to his home county superintendent and board of education. The application shall be submitted in quadruplicate and shall include a map of the area accurately picturing the proposed route. Application shall be filed not later than August 5.

22.5(2) Joint consultation shall then be held by the county boards involved. The initial steps may be undertaken by the county superintendents. If there are no difficulties and agreement is reached, the route is approved and no further action need be taken.

22.5(3) If agreement is not reached in the initial attempt the superintendent of the county in which the applying school is located shall advise the superintendent of reasons for failure to reach agreement and request that he revise the application to meet the objection and resubmit same.

22.5(4) If the county boards do not reach agreement on the route, the home county superintendent shall forward complete record of

the case together with disapproved application to the state department of public instruction. Every effort should be made, however, to settle the matter locally.

22.5(5) All legal provisions, standards and regulations applying to approval and operation of bus routes apply equally to inter-county bus routes.

22.5(6) All intercounty bus routes must be approved each year. If there has been no change in the designations, nor in the proposed route, application may be made and agreement indicated by letter.

22.6(285) Bus route conflicts. Bus route controversies shall be settled with reference to the designation area. Except as stated above, bus routes shall not be approved outside the designated area. Pupils covered by special designation will be expected to meet the bus as provided above.

DIVISION III COUNTY BOARD PROCEDURE

22.7(285) Hearing on designations. After receipt of petition from parents requesting change in designation or after receipt of notice of action taken by local boards on request for change of designation, the county board shall set a date for a hearing. All parents and the local board involved should be permitted to be present for the discussion.

After completion of the hearing the county board shall render the decision and notify all parties concerned of the decision within three days of the hearing.

22.8(285) Errors corrected. In areas where corrections are necessary due to errors in the original designations the county board may initiate procedure for making necessary changes. The resulting designation must, however, be in accordance with legal requirements and regulations.

22.9(285) Change in designation. When a change in the designation is approved by the county board, new designations conforming to the new division lines shall be made up.

A note should be attached to the four copies forwarded to the division of transportation listing designations which are superseded and which should be removed from the files.

22.10(285) Instructions furnished. The county superintendent shall supply all school district officials and other interested parties with detailed instructions and information covering procedure to be followed in setting up designations and in affecting changes in designations.

22.11(285) Map furnished. The county superintendent shall supply each district with a map showing designation areas.

22.12(285) Patrons informed. The county superintendent shall make diligent efforts to acquaint all patrons of the county with the details of the transportation program.

DIVISION IV PRIVATE CONTRACTORS

22.13(285) Contract required. All private individuals wishing to transport public school pupils to and from public school in privately owned vehicles must be under contract with the board of education. This will not apply to parents who transport their own children only.

The contract form used shall be that provided by the department of public instruction. (Form TR-F-4-497)

22.14(285) Uniform charge. The contract must provide for a uniform charge for all pupils transported. No differentiations may be made between pupils of different districts except as provided in section 285.1, subsection 12.

22.15(285) Board must be party. The contractor may not arrange with individual families for transportation. The contractor undertakes to transport only those families indicated by the board of education.

22.16(285) Contract with parents. Parents undertaking to transport other children in addition to their own, are private contractors. These parents must be under contract, and must obtain a chauffeur's license and a school bus driver's permit.

22.17(285) Vehicle requirements. Any vehicle used, other than that used by a parent to transport his own children only, is considered to be a school bus and must meet all requirements set up for the type of vehicle used. (This is not intended to restrict the use of passenger cars during the time they are not actually engaged in transporting public school pupils.)

DIVISION V FINANCIAL RECORDS AND REPORTS

22.18(285) Required charges. Full pro rata costs must be charged and collected for the transportation of all nonresident pupils. No differentiation may be made in charges due to differences in distance or grade in school.

22.19(285) Estimated cost report. Form TR-F-13, estimated cost of transportation, must be compiled by transporting districts each year. The form shall be completed in quadruplicate and forwarded to the county superintendent with application for approval of bus route.

After the county board has officially acted upon the report, all four copies are to be forwarded to the department of public instruction.

22.20(285) School-owned buses. All data indicated on Form TR-F-13 must be supplied for school-owned buses.

Contingent expense should in no case be estimated at less than one hundred dollars per bus. For older buses this item should be as high as four hundred dollars.

22.21(285) Contract buses. In case buses are privately owned, only the amount of the contract need be given. This shall be entered in the space provided for driver's salary.

22.22(285) Billing basis. Transportation bills must be based on the current year's costs.

22.23(285) Adjusted billing. The bill to the sending district covering the first semester shall be based on the estimated cost and the estimated amount of state reimbursement.

The bill to the sending district covering the second semester shall be based on the actual cost and the estimated amount of state reimbursement.

The second semester bill must, therefore, make the necessary adjustment arising from any variations between the estimated cost used in the first semester bill and the actual cost as determined at the end of the second semester.

22.24(285) Account corrected. As soon as the actual amount of state reimbursement is known a transporting district may make the necessary corrections in accounts by means of a credit to the sending district on the next transportation bill if the charge was too high or by adding the amount the sending district owes if the charge was too low.

22.25(285) Activity trips deducted. Transporting school districts which use their equipment for activity trips or educational tours must deduct the cost of such trips from the total yearly transportation bill. In other words, such costs may not be included in the pro rata costs which determine the charge to sending districts.

Accurate and complete accounting records must be kept so that the cost of transportation to and from school may be ascertained.

DIVISION VI TRANSPORTATION MAPS

22.26(285) County superintendent. Each county superintendent is responsible for providing up-to-date transportation maps each year to the various districts in the county and to the state department of public instruction.

The regular Iowa highway commission road maps drawn on a scale of one inch to the mile should be used.

22.27(285) Homes numbered. All homes in the county outside of incorporated towns and villages shall be numbered.

22.28(285) Color coding. Designation areas shall be blocked out in light color, using contrasting colors for adjacent areas. All territory outside of high school operating districts shall be included.

22.29(285) Crosshatching. Elementary districts in which the school is open may be indicated on the map by light crosshatching with lines about one-fourth inch apart.

22.30(285) Route markings. All bus routes shall be clearly marked as approved by the county board. The same color shall be used as for the designation area in which the bus operates.

22.31(285) Special designation coding. Special designations may be indicated by a circle

around the home and an arrow pointing to the area in which the school attended is located.

DIVISION VII USE OF SCHOOL BUSES

22.32(285) Permitted uses listed. School buses may be used to transport pupils under the following conditions:

22.32(1) The program is a part of the regular or extracurricular program of a public school and has been so adopted and made a matter of record in the minutes of all the boards involved.

22.32(2) The pupils are enrolled in a public school.

22.32(3) The program or activity must be sponsored by a school or group of schools co-operatively and be under the direct control of a qualified teacher or recreational or playground director of some school district.

a. A regularly certificated teacher must be in charge of the program. Several or all schools may engage the same instructor on a co-operative basis.

b. In transporting pupils to Red Cross swimming classes a superintendent of schools may be designated by his own board as the supervisor or director of the activity and may use the Red Cross instructor to carry on the actual instruction in swimming.

c. If the Red Cross instructor holds a regular teacher's certificate issued by the board of educational examiners, he can be named as general supervisor of the activity by the several schools.

22.32(4) The bus shall be driven by a regularly approved driver holding a chauffeur's license and a school bus driver's permit. In addition thereto, the buses must be accompanied by a member of the faculty of said school who will be responsible for the conduct and general supervision of the pupils on the bus and at the place of the activity. If the faculty member is an approved driver he can act both as a driver and faculty sponsor.

22.33(285) Teacher transportation. Public school teachers who are transported should be included in the average number transported and should be charged the pro rata cost by the transporting district.

The teachers should be included in the list of pupils transported, form TR-F-20-4, and the number of weeks the teacher was transported included in the nonreimbursable column.

DIVISION VIII THE BUS DRIVER

22.34(285) Driver qualifications. General character and emotional stability are qualities which must be given careful consideration by boards of education in the selection of school bus drivers.

22.34(1) Elements that should be considered in setting a character standard are:

a. Reliability or dependability.

b. Initiative, self-reliance, and leadership.

- c. Ability to get along with others.
- d. Freedom from use of undesirable language.
- e. Personal habits of cleanliness.
- f. Moral conduct above reproach.
- g. Honesty.
- h. Freedom from addiction to narcotics or habit-forming drugs.
- i. Freedom from addiction to alcoholic beverages or liquors.

22.35(285) Stability factors. Factors to be considered in determining emotional stability are:

- 22.35(1) Patience.
- 22.35(2) Considerateness.
- 22.35(3) Even temperament.
- 22.35(4) Calmness under stress.

22.36(285) Driver age. School bus drivers must be at least sixteen years of age, and not more than sixty-five years of age as of August 1 preceding the opening of the school year. The department of public instruction may, at its discretion, waive the upper age limit upon application of the board of education and receipt of evidence of satisfactory physical condition of the driver.

22.37(285) Physical fitness. Applicants for the school bus driver's permit must submit signed physician's statement indicating physical fitness as follows:

22.37(1) Sufficient physical strength to operate the bus effectively.

22.37(2) Possession of full and normal use of both hands, both arms, both feet, and both legs. Amputation of an arm or foot will disqualify the applicant. Amputation of more than two fingers of the hand will disqualify the applicant. In other words, the applicant should have one complete hand, and the thumb and at least two fingers of the other hand to qualify. Individual evaluations will be made for applicants who have parts of fingers missing.

22.37(3) Freedom from any communicable disease, such as tuberculosis.

22.38(285) Tests for tuberculosis.

22.38(1) Types of tests. An applicant for a school bus driver's permit may take either the intradermal tuberculin skin test or a chest X-ray film. If the result of the intradermal tuberculin skin test is positive, however, an X-ray must then be taken. An applicant whose chest X-ray shows any active form of tuberculosis will be rejected. Patch tests are not acceptable for purposes of qualifying for a school bus driver's permit.

22.38(2) Duration of test results. An applicant who has had a negative intradermal tuberculin skin test or a negative chest X-ray within the twelve-month period preceding September 1 of the school year in which the permit is to be issued is not required to be retested within that school year.

22.39(285) Additional fitness requirements. Freedom from mental, nervous, organic, or functional disease; including but not limited to epilepsy, paralysis, insanity, abnormal blood pressure, heart ailments or any disease that may cause a tendency to fainting. Blood pressure in excess of 170 (systolic) and 100 (diastolic) taken in a sitting position, or diabetes, will disqualify the applicant in the absence of a qualified physician's recommendation and satisfactory statement covering the significance of the condition.

22.40(285) Mental fitness. The driver must be mentally alert and of at least normal intelligence.

22.41(285) Vision requirements. The applicant must have at least 20/40 vision in each eye, either normally or after correction. If the vision in one eye is near normal, visual acuity within the limits of 20/60 in the other eye will be acceptable for qualification. If corrective lenses are required to bring vision within the aforesaid limits they must be worn by the licensee at all times when operating the bus. Tunnel or barrel vision will disqualify an applicant. The applicant must have a field of vision of at least 150 degrees. The applicant must have near-normal depth perception and have no color deficiency which would interfere with safe driving.

22.42(285) Hearing requirements. The driver must have sufficient hearing in both ears to be able to hear sirens, whistles, warning bells, signals, and other sounds related to safe operation of school buses. Applicant must meet this requirement without the use of a hearing aid.

22.43(285) Experience. Experience in driving large vehicles, such as trucks or buses, is essential. When student drivers who have not had this experience are selected, the administration must see that they are given this experience in the operation of the school bus before permitting them to transport pupils.

22.44(285) Traffic law knowledge. A thorough knowledge of traffic laws and regulations shall be required of all drivers.

22.45(285) Application form. The school bus driver and the board of education shall submit signed application for the permit upon forms prescribed by the department of public instruction.

22.46(285) Driving record. No driver should be employed until the board has assured itself that the applicant has an acceptable driving record.

DIVISION IX PURCHASE OF BUSES

22.47(285) Local board procedure. The board of education shall proceed as follows in purchasing school buses:

22.47(1) Obtain a letter of approval of purchase from county board when required.

22.47(2) Use separate specification and bid request sheets. (The statutes require body and chassis to be bought on separate contracts.)

22.47(3) Notify at least four body and four chassis dealers of intent to purchase school transportation equipment and request bids.

22.47(4) Reserve right to reject all bids.

22.47(5) Require all bids to be on comparable equipment which meets all state requirements and is on list of equipment listed as meeting said requirements.

22.47(6) Hold an open meeting for dealers to present merits of their equipment.

22.47(7) Review bids, tabulate all bids, make a record of action taken.

22.47(8) Sign separate contracts or orders for purchase of body and chassis. Purchase agreement must provide that dealer will deliver equipment which will pass initial state inspection at no further cost to school and further provide that school board shall withhold at least one hundred fifty dollars until vehicle passes initial state inspection.

22.47(9) Notify the state department of public instruction, division of transportation, of purchase and date of delivery so that arrangements can be made for initial inspection. No vehicle can be put into service until inspected, approved, and a seal of approval issued.

22.48(285) **Financing.** The board of education may finance purchase of transportation equipment as follows:

22.48(1) The board may pay all of the cost of each bus from funds on hand in general fund.

22.48(2) Bonds may be voted to purchase equipment, and funds so derived shall be used for that purpose.

22.49(285) **Purchase on installments.** The board may purchase buses on contracts.

22.49(1) Contracts for that purpose must be made in duplicate for the purchase of both chassis and bus body. A copy of the resolutions of the board for the purchase of said equipment should be included in the contract. Said contract must provide that at least one-fourth of the cost will be paid on delivery and the balance paid in not to exceed five equal installments on the dates specified with accrued interest due at a rate not to exceed four percent. The number and date of each warrant with the date of payment shall be stated in the contract.

22.49(2) Warrant for down-payment shall be issued when the bus is delivered and shall be cashed at once. No more than five additional warrants, covering the cost of each vehicle purchased, for not to exceed one-fifth of the

balance due and the date of payment on each vehicle, shall be issued at the time of purchase. These additional warrants shall be presented to the treasurer of the district and endorsed "not paid for lack of funds" and shall draw interest at the rate agreed upon but not to exceed four percent. Copies of contracts and a letter of approval from the county board of education for the purchase of bus body and chassis shall be delivered to any bank or person who purchases said warrants and the holder shall present said warrant to the board for payment on the date due as provided in the contract. (See attorney general's opinion of July 25, 1949, to superintendent of public instruction.)

22.50(285) **County board approval.** Form TR-F-17-4912 shall be used when county board approval is required. If bus is to be paid for over a period of five years, eleven copies of TR-F-17-4912 are necessary.

22.51(285) **Details of purchase procedure.**

22.51(1) If the contract provides for buying the bus over a five-year period, the board of education will issue six copies of form TR-F-19-4911 per body, and six copies of form TR-F-19-4911 for chassis. One copy each of contract for body and chassis shall be kept for the secretary's files.

22.51(2) Secretary shall issue necessary warrants for meeting terms of contract. At least one warrant must be drawn for the one-fourth down-payment on body and one for the one-fourth down-payment on chassis and not more than five equal warrants drawn for the annual payments on body and not more than five equal warrants drawn for annual payments on chassis.

22.51(3) Said warrants must be drawn in favor of the firm or company selling the respective body and chassis.

22.51(4) Each warrant must have one copy of the contract and one copy of county board approval attached.

22.51(5) Said warrants with contract attached must be presented to treasurer of school district who will stamp said warrants as follows:

"Not paid for lack of funds"
This warrant to be presented
for payment on 19...
or when called for payment.

.....
Treasurer, School District

22.51(6) The person or company who receives these warrants may sign them over to any bank or person with or without recourse as follows:

Pay to the order of
.....
(Name of bank or person)
with or without recourse.
.....
(Name of payee)

22.51(7) Banks or individuals may accept these warrants as herein provided.

DIVISION X

MISCELLANEOUS REQUIREMENTS

22.52(285) Annual inspection. To facilitate the annual inspection program required by statute school district officials shall send their buses to inspection centers as scheduled. The buses shall be driven to and accompanied through the inspection by the regular drivers.

22.53(285) Maintenance record. As a part of the annual inspection program school district officials shall cause the chassis of all buses, whether publicly or privately owned, to be inspected and all necessary repairs made before the opening of the school term each fall. The inspection and repairs shall be recorded on forms prescribed by the department of public instruction. The completed form shall be signed by the mechanic and carried in the glove compartment of the bus.

22.54(285) Drivers' schools. All school bus drivers shall attend classes or schools of instruction when held by the state department of public instruction.

22.55(285) Insurance. The board of education shall carry insurance on all school-owned buses and see that insurance is carried by all contractors engaged in transporting pupils for the district as follows:

22.55(1) Fire-theft-windstorm-comprehensive insurance should be carried on each bus.

22.55(2) Liability insurance. Since bus drivers can be sued for damages for which they are directly responsible, no driver should drive a bus unless fully covered by liability insurance. Since drivers often change during the year, the board of education shall carry insurance on all buses written to protect all approved drivers. Insurance should be carried in the amount of \$100,000-\$300,000 liability and \$10,000 property damage.

22.55(3) Medical care, hospitalization, etc. Since liability insurance does not cover accidents to children caused by other vehicles or from other causes not resulting from carelessness, etc., of the driver of the school bus, medical pay insurance in the amount of at least five hundred dollars per pupil shall be carried.

Both liability and medical care insurance should be bought only for school term of nine months except that if one of the buses is to be used for approved summer activities, insurance for twelve months should be purchased. Collision insurance is not recommended and cannot be charged to cost of transportation.

22.55(4) The Iowa school bus endorsement shall be a part of all school bus policies.

22.56(285) Contract—privately owned buses. The board of education and a contractor who undertakes to transport public school pupils for the board, in privately owned vehicles, shall sign the official contract prescribed by the department of public instruction. The contract shall contain the following provisions:

22.56(1) To furnish and operate at his own expense a legally approved vehicle of transportation (or a legally approved chassis on which may be mounted a school bus body supplied and maintained by the board of education) to and from the school each day beginning on the date set by the board over route as described, transporting only children attending public school designated by the party of the second part.

22.56(2) To comply with all legal and established uniform standards of operation as required by statute or by legally constituted authorities.

22.56(3) To comply with all uniform standards, established for protection of health and safety for pupils transported.

22.56(4) To comply with all rules and regulations adopted by the board of education for the protection of the children, or to govern the conduct of driver of bus.

22.56(5) To keep bus in good mechanical condition and up to standards required by statutes or by legally constituted authorities.

22.56(6) To take school bus to official inspection when held by state authorities with no additional expense to party of second part.

22.56(7) To see that the bus is swept and the windows cleaned each day and that registration plates and all lights are cleaned before each trip. Further, that the bus is washed and the floor swept and scrubbed with a good disinfectant each week. In case of an epidemic he shall wash entire bus with a disinfectant.

22.56(8) To drive the bus himself or to use only drivers and substitute drivers who have been approved by the board of education and have received school bus driver permits.

22.56(9) To furnish the board of education an approved certificate of medical examination for each person who is approved by the board of education to drive the bus.

22.56(10) To attend one county or regional school of instruction for bus drivers when called by state department of public instruction, division of transportation. (If owner does not drive the bus, the regular approved driver of bus shall attend.)

22.56(11) To carry insurance on bus and pupils with Iowa endorsement as part of policy. As follows: Liability \$10,000-\$100,000; property damage \$5,000 and medical care \$500 per pupil. Copy of policy to be filed with superintendent of schools.

22.56(12) To make such reports as may be required by state department of public instruction, county board of education, and superintendent of schools.

22.56(13) That the school bus shall be used only for transporting regularly enrolled students to and from public school and to extracurricular activities approved and designated by the board of education and further

to comply with all legal restrictions on use of bus.

22.56(14) To obtain, if possible, the registration numbers of all cars violating the school bus passing law, section 321.372 of the Code and file information for prosecution.

22.56(15) Party of second part hereby reserves the right to change routing of the bus and if additional mileage is required it shall be at an extra cost not exceeding \$..... per additional mile per month. If shortened

22.56(16) The use of alcoholic beverages or immoral conduct by party of the first part shall automatically cancel this contract as provided in section 321.375 of the Code.

22.56(17) Contract may be terminated on ninety-day notice by either party, section 285.5(4).

22.56(18) Party of first part agrees that, in case he desires to terminate the contract he will sell his school bus to the board of education at their request as provided in section 285.5(1) of the Code. (Does not apply to passenger auto used as school bus.)

22.56(19) It is further agreed that party of second part reserves the right to withhold and retain as property of the board of education two weeks salary pending complete compliance with terms of contract or for being avoidably late.

22.57(285) Contract — district-owned buses. The board of education and a private individual undertaking to transport public school pupils for the board in school-district-owned vehicles shall sign the official contract prescribed by the state department of public instruction. The contract shall contain the following provisions:

22.57(1) To conform to all rules of the board of education in and for said district adopted for the protection of the children and to govern the conduct of the person in charge of said conveyance.

22.57(2) To make such reports as may be required by the state department of public instruction, county board of education, or superintendent of schools.

22.57(3) To conform to all standards for operation of the school buses as required by statute or by legally constituted authorities.

22.57(4) To take bus to school bus inspections when held under auspices of the division of transportation, department of public instruction, without further cost to the board.

22.57(5) To attend a county or regional school of instruction for bus drivers when called by the state department of public instruction, division of transportation.

22.57(6) That the party of the second part can terminate this contract and dismiss the party of the first part for any inattention to duty, use of intoxicating liquors, immoral conduct, incompetency, or for any other good cause.

22.57(7) That this contract shall not be in force until driver presents official school bus driver permit.

22.58(285) Accident reports. The superintendent of schools shall make a report to the division of transportation, department of public instruction, on any accident involving any vehicle in use as a school bus. The driver of the bus shall co-operate with the superintendent in making such report. The report shall be made on the department of public safety Form D-48, "Driver's Confidential Report of Motor Vehicle Accident, State of Iowa."

22.59(285) Railroad crossings. The driver of any school bus shall bring the bus to a complete stop at all railroad crossings, as required in section 321.343 of the Code, regardless of whether or not there are any pupils in the bus, and regardless of whether or not there is an automatic signal at the crossing.

22.60(285) Stopping on highway.

22.60(1) A school bus shall not stop to load or unload pupils at any point on a primary highway where the clear vision distance in either direction is less than one thousand feet.

22.60(2) On a secondary highway the clear vision distance shall be at least seven hundred feet in each direction.

22.60(3) No scheduled stop shall be made in a "no passing" zone.

22.61(285) Civil defense projects. Civil defense projects may be recognized by the board of directors of any school district as an authorized extracurricular activity under the following conditions:

22.61(1) Such activity may take the form of, but need not be restricted to:

a. First-aid classes.

b. Study and distribution of materials relating to community survival, fallout shelters, radiation detection, and other pertinent disaster measures.

c. Exercises and field trips related to the above matters.

d. Co-operation with local, state, and national authorities, both civil and military, and interested organizations, in carrying out civil defense exercises and in planning and making preparations for passive defense in time of actual emergency.

22.61(2) The use of school buses for field trips and exercises, and the planned use of school buses in connection with actual emergency procedures to be carried on in co-operation with local, state, or national authorities, civil or military, is hereby defined as properly incident to such authorized extracurricular activity.

22.61(3) All such projects, except an actual emergency operation where time is of the essence, shall have prior approval of the state department of public instruction.

22.61(4) The bus shall be driven by an approved driver holding a chauffeur's license and a regular school bus driver's permit ex-

cept that in actual emergency situations, where regular drivers are not available, certain other drivers, including students and teachers, may be used providing the following conditions are met:

The driver shall:

a. Be approved by the local board of education.

b. Be at least sixteen years of age and not more than sixty-five years of age, be physically and mentally competent, and not possess personal or moral habits which would be detrimental to the best interests of the safety and welfare of the children transported.

c. Have an emergency school bus driver's permit issued by the state department of public instruction.

22.61(5) To qualify for this special permit, the applicant must pass a physical examination which shall indicate the following:

a. Sufficient physical strength to handle the bus with care.

b. Possession of full and normal use of both hands, both arms, both feet, and both legs. Amputation of an arm or foot will disqualify the applicant. Amputation of more than two fingers of the hand will disqualify the applicant. In other words, the applicant should have one complete hand, and the thumb and at least two fingers of the other hand to qualify. Individual evaluations will be made for applicants who have parts of fingers missing.

c. Freedom from mental, nervous, organic, or functional disease such as epilepsy, paralysis, insanity, diabetes, abnormal blood pressure, heart ailments or any disease that may cause a tendency to fainting. Blood pressure in excess of one hundred seventy (systolic) and one hundred (diastolic) taken in a sitting position will disqualify the applicant in the absence of a qualified physician's recommendation and satisfactory statement covering significance of high pressure.

d. At least 20/40 vision in each eye, either normally or after correction. If one eye is near normal, visual acuity within the limits of 20/100 in the other eye is permissible. If glasses are required to bring the vision within above limits, the glasses must be worn at all times when driving the bus. Persons with tunnel or barrel vision may not be used. The driver must have near normal depth perception. Color blindness in a driver is undesirable.

e. Sufficient hearing in both ears to be able to hear sirens, whistles, warning bells, signals, and other sounds related to safe operation of school buses. Applicant must meet this requirement without the use of a hearing aid. [Filed June 2, 1961; amended April 30, 1962, July 12, 1962, May 10, 1966]

CHAPTER 23 THE SCHOOL BUS

- 23.1 Requirements for manufacturers.
- 23.2 The school bus chassis.
- 23.3 The school bus body.
- 23.4 Small vehicles.

23.1(285) Requirements for manufacturers. In order to protect both the boards of education and distributors from misunderstanding and confusion, all manufacturers shall:

23.1(1) Submit specifications to division of transportation, department of public instruction, for all models of equipment that are to be offered for sale in Iowa. Notice of approved equipment will be made available to all schools. Certification of models as approved will be given to manufacturers.

23.1(2) File with transportation a statement of list price of approved models including equipment needed to meet state requirements.

23.1(3) On special equipment obtain approval of state department of public instruction before using on or in buses. This shall apply to such special equipment as:

- a. First-aid kits.
- b. Fire extinguishers.
- c. Flashing stop warning lights and switch.
- d. Directional signal lights.
- e. Stop signal arm.
- f. Assistor brake equipment.
- g. Heaters.
- h. Reflectors.

23.1(4) Be sure buses are bought according to established procedures and legal provisions for purchasing school transportation equipment.

23.2(285) The school bus chassis. Minimum standards for the school bus chassis shall be those recommended at pages 13 to 28, inclusive, of *Minimum Standards for School Buses*, 1964 Revised Edition, by the National Conference on School Transportation, administered by the National Commission on Safety Education, and published by the National Education Association, 1201 Sixteenth Street N.W., Washington, D. C. 20036, except as may be otherwise provided by statute and except as follows.

23.2(1) Air cleaner. In addition to meeting the nationally recommended minimum standards hereinabove adopted, the air cleaner shall be so designed and located as to prevent intake of water from cowl drainage or runoff.

23.2(2) Battery.

a. The storage battery as established by the manufacturer's rating shall be of sufficient capacity to efficiently care for the starting, lighting, signal devices, heating, defrosting, and other electrical equipment. The battery shall be mounted on a sliding battery tray in a special compartment located in the body skirt, or in the engine compartment under the hood in an accessible place.

b. When the battery is mounted in a special compartment located in the body skirt it shall have a rating of not less than one hundred fifty ampere hours at twelve volts measured at twenty-hour rate.

c. The battery, when it is mounted in the engine compartment under the hood, shall have a minimum ampere-hour rating of eighty-five amperes. The battery rack shall be of such size that it will accommodate a ninety-ampere hour battery of maximum size. The use of two six-volt batteries is permissible, but when used, they shall be rated at a minimum of one hundred fifty ampere hours.

d. When the battery is to be mounted outside of the engine compartment, it may be temporarily mounted to the chassis. The body company will permanently mount the battery on a sliding tray located so that the center line of the battery is fifty-two inches back of the cowl. One-piece battery cables shall be provided by the chassis manufacturer; such cables are to be at least thirty-six inches longer than normally required, to accommodate the battery when it is located fifty-two inches to the rear of the cowl. The battery cable, if passed through holes in the metal, shall be protected by nonmetallic grommets. All retaining clips or fastening devices for the battery cables must be insulated.

e. No small vehicle shall be equipped with a battery of less than seventy ampere hours at twelve volts, measured at twenty-hour rate.

23.2(3) Bumper, front. In addition to meeting the nationally recommended minimum standards hereinabove adopted, the front bumper shall be "heavy-duty" type and be curved or beveled at each end so as to prevent snagging or hooking.

23.2(4) Color. The chassis including front bumper, fenders and wheels shall be black. The hood and cowl shall be national school bus chrome. The grille shall be either black or national school bus chrome.

23.2(5) Alternator. In addition to meeting the nationally recommended minimum standards hereinabove adopted, the alternator, except in the case of small vehicles, shall have a minimum output of one hundred amperes with a minimum charging rate of twenty amperes at manufacturer's recommended idle speed.

For small vehicles the generator or alternator with rectifier shall have a minimum output of forty amperes with twelve-volt system and shall be ventilated and voltage controlled and, if necessary, current controlled.

23.2(6) Horn. In addition to meeting the nationally recommended minimum standards hereinabove adopted, the bus shall be equipped with dual horns with each having a sound level of one hundred twenty decibels.

23.2(7) Instruments. The bus shall be equipped with instruments, as provided in the nationally recommended minimum standards hereinabove adopted, except that a voltmeter shall be substituted in place of an ammeter.

23.2(8) Tires and rims. In addition to meeting the nationally recommended mini-

imum standards hereinabove adopted, on equipment now in operation, recapped tires may be used as replacements for use on rear wheels only providing the tires are guaranteed by the seller.

23.2(9) Tow hooks. The bus shall be equipped with one front heavy duty center mounted tow hook, adequately secured to the frame rails with braces, or two tow hooks fastened securely to the front end of the frame. Tow hooks on the rear are optional. If provided, however, they shall not protrude beyond outer edge of rear bumper.

23.2(10) Voltage regulator. The bus electrical system shall include a voltage regulator of a repairable type. Such regulator shall be of the full-transistor variety except for the field relay which may be either a solid state or controlled contact unit. The regulator shall have readily accessible external adjustment.

23.3(285) The school bus body. Minimum standards for the school bus body shall be those recommended at pages 29 to 53, inclusive, of *Minimum Standards for School Buses*, 1964 Revised Edition, by the National Conference on School Transportation, administered by the National Commission on Safety Education, and published by the National Education Association, 1201 Sixteenth Street N.W., Washington, D. C., except as may be otherwise provided by statute and except as follows:

23.3(1) Ax. The bus shall be equipped with a short hand ax with approximately a two-pound head and an eighteen-inch shank, mounted in a position accessible to the driver.

23.3(2) Body sizes. The bus shall meet the specifications as provided in the nationally recommended minimum standards hereinabove adopted, except that small vehicles may vary in capacity up to twenty pupils.

23.3(3) Color. The school bus body, including roof, shall be uniformly painted in the color, national school bus chrome, in accordance with specifications disseminated by the general services administration of the United States government. The rear bumper, all lettering, and body trim if used, shall be black.

23.3(4) Defrosters and heaters shall be required.

a. The defrosters shall be of sufficient capacity to keep the windshield, window to left of driver, and glass in entrance door clear of fog, frost, and snow.

b. The defrosters shall have separate all-metal fans which secure air directly from the heater core and the air mixture shall be at least sixty percent fresh air.

c. The defroster units shall be driver controlled and regulated, operating independently through their own duct system.

d. In addition, two adjustable six-inch all-metal or polycarbonate resin defroster fans shall be installed. The fans shall have a minimum of four blades and be equipped with ade-

quate guards. Each unit shall be independently adjustable and operated by the driver. These fans shall be on a separate circuit, with a switch for each fan, and be capable of two-speed operation.

23.3(5) Service door. In addition to meeting the nationally recommended minimum standards, hereinabove adopted, as the same relate to service doors, a header pad of approximately eighteen inches in width shall be installed directly within and above the service door opening and shall extend horizontally between the vertical sides of the service door opening to within three inches of each such vertical side. A power operated door must provide for manual operation in case of power failure. If understep-type door control is used, it must be completely enclosed. There shall be no security type of lock, or locking device, installed on the service door.

23.3(6) Emergency door. In addition to meeting the nationally recommended minimum standards, hereinabove adopted, as the same relate to emergency doors, the lower portion of the emergency door shall be equipped with approved safety glass, exposed area of which shall not be less than three hundred square inches. There shall be no security type of lock, or locking device, installed on the emergency door. The emergency door shall be equipped with a heavy duty metal doorstop and hold bracket or two heavy duty straps to prevent the door from striking lamps when it is open.

23.3(7) Fire extinguisher.

a. The bus shall be equipped with one dry chemical type fire extinguisher of five-pound capacity or two dry chemical type fire extinguishers of at least two and one-half pound capacity each, mounted in extinguisher manufacturer's bracket of automotive type, and located in the driver's compartment in full view of and readily accessible to the driver.

b. Each fire extinguisher shall have a minimum rating of 8-B:C and shall have a pressure gauge or indicator installed on it.

c. Each extinguisher shall meet the applicable standards prescribed by a testing organization of national reputation which undertakes to test and provide standards for extinguisher equipment. The testing laboratory must be one that is recognized by the Iowa state fire marshal. Each extinguisher shall bear the label of the testing laboratory.

23.3(8) First-aid kit.

a. The bus shall carry a grade "A" metal first-aid kit and shall either be mounted in full view or the location of the kit labeled so any driver will know where to find it. The kit shall be accessible to the driver and mounted in such manner that it can be removed from the bus if necessary.

b. First-aid kits must be approved by the state department of public instruction.

c. Sizes required for buses:

Ten unit kit required in all vehicles carrying less than twenty passengers.

Sixteen unit kit required in all buses carrying twenty to thirty passengers.

Twenty-four unit kit required in all buses carrying thirty-one to forty-eight passengers.

Thirty-six unit kit required in all buses carrying forty-nine or more passengers.

ITEM	10-unit	16-unit	24-unit	36-unit
1" Adhesive Compress	—	1	1	2
2" Bandage Compress	1	1	2	2
3" Bandage Compress	—	1	2	2
4" Bandage Compress	1	1	2	2
3" x 3" Plain Gauze Pads (Dressings)	1	1	1	4
Gauze Roller Bandage	1	1	2	4
Plain Absorbent Gauze 2 pieces; (18" x 36")	1	2	4	6
Plain Absorbent Gauze (24" x 72")	1	2	3	5
Triangular Bandages	1	3	4	6
Tourniquet	1	1	1	1
Band Aids (Packet)	1	1	1	1
Wire Splint	1	1	1	1

23.3(9) Flags. Three sixteen-inch red flags and means for roadside mounting shall be located in an accessible place near driver.

23.3(10) Flares. Each bus shall be equipped with three red reflector type flares. (Oil type flares are not acceptable.) Flares must be mounted in an accessible place near driver.

23.3(11) Fusees. Each bus shall be equipped with three thirty-minute stand-up fusees stored in a canister with a lid. The canister is to be mounted in an accessible place near the driver.

23.3(12) Floor covering. In addition to meeting the nationally recommended minimum standards, hereinabove adopted, as the same relate to floor covering, cove molding shall be used along the side walls and rear corners, and all floor seam separations shall be covered with durable metal stripping.

23.3(13) Gasoline fill cap cover. The gasoline fill cap opening in the body skirt shall be equipped with a hinged cover held closed by a spring or other conveniently operated device.

23.3(14) Identification. In addition to meeting the nationally recommended minimum standards, except minimum standard 3, hereinabove adopted, identification shall conform to the following requirements:

a. The bus, whether school owned or privately owned, shall bear the official name of the school on each side in black standard unshaded letters, at least five inches but not more than seven inches high.

- Examples: (1) Blank Community School District
 (2) Blank Independent School District

- (3) Blank Consolidated School District
- (4) Blank Township School District

If there is insufficient space due to the length of the name of the school district, the words Community, Independent, Consolidated, Township and District may be abbreviated.

b. The rated pupil seating capacity of the bus shall be printed to the left of the entrance door, approximately six inches below the name of the school district, in two-inch characters. The word "capacity" may be abbreviated. For example: Rated Cap. 48.

c. The number of the bus shall be printed in not less than five-inch nor more than eight-inch characters. The location of the number is at the discretion of the local district except that the number of the bus shall not be on the same line as the name of the school district.

d. Privately owned buses shall also bear the name of the owner, followed by the word "OWNER" in one and one-half inch characters printed approximately six inches below the bus capacity on the right side of the bus.

e. The rated seating capacity of the bus shall also be printed above the right windshield on the inside of the bus.

f. Decals for any lettering on the bus in lieu of painting are not acceptable with the exception that the label on the inside of the emergency door to indicate how it operates may be a decal.

23.3(15) Insulation. In addition to meeting the nationally recommended minimum standards, hereinabove adopted, as the same relate to insulation, all insulation shall be so firmly installed that it will retain its original position. Plywood may be used for floor insulation.

23.3(16) Lamps and signals.

a. *General.* All lamps and their installation shall conform to the current standards and recommendations of the Society of Automotive Engineers. All lamps and reflectors must be approved by the Iowa commissioner of public safety.

b. *Head lamps.*

(1) The bus shall be equipped with a minimum of two sealed-beam head lamps of proper intensity and fuses or circuit breakers.

(2) There shall be a manually operated foot switch for selection of high or low beam distribution of these headlights.

c. *Clearance lights.* The body shall be equipped with two red clearance lamps at the rear and two amber clearance lights at the front mounted at the highest and widest portion of the body.

d. *Identification lights.* The bus shall be equipped with three amber identification lights on the front and three identification lights on the rear. Each such group shall be evenly spaced not less than six nor more than twelve

inches apart along a horizontal line near the top of the vehicle.

e. *Reflectors.*

(1) The bus shall be equipped with two amber reflectors, one on each side at the lower front and corner of the body approximately at floor level and back of the door on the right side, and at a similar location on the left side.

(2) The bus shall be equipped with four red reflectors; one at each side at or near the rear; and two on the rear, one at each side.

(3) The reflectors are to be mounted at a height not to exceed forty-two inches nor less than twenty inches above the ground on which the vehicle stands.

f. *Tail and stop (brake) lamps.*

(1) Bus shall be equipped with two tail lamps and two stop (brake) lamps not in combination, emitting red light plainly visible for distance of five hundred feet to rear. Signal area of stop (brake) lamps shall be at least six inches in diameter and shall have light intensity at least equal to Class "A", Type "I" turn-signal units as established by Society of Automotive Engineers.

(2) Tail lamps shall be mounted not less than forty inches from surface on which vehicle stands. Stop (brake) lamps shall be as high as practicable but below window line, and spaced as far apart laterally as practicable but not less than three feet. Measurements shall be taken from lamp centers.

(3) The lens on these lamps shall be free of lettering except for manufacturer's markings.

g. *Interior lights.* Interior lights shall be provided which adequately illuminate the interior aisles and step-well.

h. *Registration plate lamp.* The bus shall be equipped with a rear registration plate illuminator. This lamp may be combined with one of the tail lamps.

i. *Warning signal lights.* School bus warning signal lamps are alternately flashing lamps at the same horizontal level, intended to identify the vehicle as a school bus, and to inform other users of the highway that such vehicle is about to stop, or is stopped, to take on or discharge school children. Requirements for such lights, as used on school buses, shall be as follows:

(1) All school buses shall be equipped with two alternately flashing red lights at the rear of the vehicle and two double lamp assemblies at the front of the vehicle; two of these front lamps shall display an amber light and the remaining two shall display a red light. These shall be sealed-beam units.

(2) Right and left lights shall flash alternately. Each light shall flash not less than sixty nor more than one hundred twenty flashes per minute.

(3) The flashing stop warning lights are to have a signal area of not less than twenty-eight square inches per lens. There

shall be no lettering, except manufacturer's markings, on the lens. The lamps shall give a distinct warning illumination of entire lens area when lighted for a distance of five hundred feet when the bus is in bright sunlight.

(4) The lens color and wiring must conform to S.A.E. specifications.

(5) The entire lamp assembly must meet S.A.E. specifications and successfully pass vibration and shock, moisture, dust, corrosion and photometric tests.

(6) The flashing warning signal lights shall be actuated manually with a switch mounted on the steering column. The switch shall have three positions: Position one—when switch lever is horizontal, all lamps shall be off; Position two—when switch lever is down, front amber and rear red lamps shall flash; Position three—when switch lever is up, front red and rear red lamps shall flash.

(7) The switch shall have two telltale or indicator lights; one shall show amber light when the switch is in position two, and the other shall show red light when the switch is in position three.

(8) The red lamps shall be mounted on the outer side of the amber lamps in the front assembly. Each signal lamp shall be mounted with its axis substantially parallel to the longitudinal axis of the vehicle. The front and rear signal lamps shall be spaced as far apart laterally as practicable, but in no case shall the spacing between lamp centers be less than forty inches. The signal lamps shall be mounted at the front on the same horizontal center line and above the windshield, and at the rear on the same horizontal center line so that the lower edge of the lens is not lower than the top line of the side window opening. The vision of the front signal lamps to the rear shall be unobstructed by any part of the vehicle from five degrees above to ten degrees below horizontal and from thirty degrees to the right and thirty degrees to the left of the center line of the vehicle. The area around the lens of each alternately flashing signal lamp and extending outward approximately three inches shall be painted black. In installations where there is no flat vertical portion of the body immediately surrounding entire lens of lamp, a circular or square band of black approximately three inches wide, immediately below and to both sides of the lens, shall be painted on the body or roof area against which signal lamp is seen from distance of five hundred feet along the axis of vehicle. Each lamp shall be mounted with its aiming plane vertical and normal to the vehicle axis.

(9) All new school buses sold within the state of Iowa from and after the effective date of this subparagraph, in lieu of meeting the specifications set forth in subparagraphs (1) through (8) hereof, shall be equipped with warning signal lamps as follows:

All such school buses shall be equipped with four alternately-flashing warning lamps at the

front and four alternately-flashing warning lamps at the rear of the bus. Two of each of said sets of four lamps shall be amber in color and two shall be red in color. Said lamps shall conform to the Society of Automotive Engineers Standard "J887, July, 1964", except that the candlepower requirement shall be two and one-half times that specified in said standard.

Installation of said lamps shall conform to said standard except that an amber signal lamp shall be located adjacent to each red signal lamp, at the same level, and at the side of the red signal lamp nearer the vertical center line of the bus. As a further exception to said standard, the system of red and amber signal lamps shall be so wired that the amber signal lamps are energized manually; and the red signal lamps are energized automatically and the amber signal lamps are de-energized automatically when the bus entrance door is opened.

The switch to actuate the amber lamps shall be installed within easy reach of the hands of the bus driver. Two indicator lights shall be located within view of the driver, one of which shall show an amber light when the amber signal lamps are flashing and the other of which shall show a red light when the red signal lamps are flashing.

The area of the bus body around the lens of each flashing signal lamp and extending outward for at least three inches shall be painted black.

j. Turn signal units. An electric direction signal lamp for school buses is a device for giving a flashing warning light to the front and to the rear of a school bus to indicate to approaching and overtaking motor vehicles the intention of the bus operator to change direction. Requirements for such devices, as used on school buses, shall be as follows:

(1) The bus shall be equipped with four class "A" amber flashing turn signal lamps that meet the specifications of the Society of Automotive Engineers. These signals must be independent units and may be equipped with a four-way hazard warning switch to cause simultaneous flashing of the turn signal lamps when needed as a vehicular traffic hazard warning. Telltale or indicator lights plainly visible to operator shall be provided to indicate that each signal is functioning properly.

(2) The illuminated signal area of the lamp shall be in the form of an amber arrow with head and shaft or arrowhead only. The luminous area shall be not less than twelve square inches. The area of the lamp face surrounding the luminous area shall be black. This may be a metal shield painted dull black or a vitreous black enamel applied to the lens itself.

(3) The lens coloring and wiring must conform to S.A.E. specifications.

(4) The flashing rate for turn signal lamps shall be no slower than sixty and no

faster than one hundred twenty times per minute under normal operating conditions. The "on" period of flasher shall be long enough to permit bulb filament to come to full brightness.

(5) The entire lamp assembly must meet S.A.E. specifications and successfully pass vibration and shock, moisture, dust, corrosion and photometric tests.

(6) Each turn signal lamp shall be mounted with its axis substantially parallel to longitudinal axis of vehicle. Rear lamps shall be mounted as near to the right and left side of bus as possible but in no case shall outer edge of lamps be more than ten inches from outer body width line. They shall be mounted below rear windows but in no case shall distance from top edge of lamp to lower edge of window exceed five inches. Front lamps shall be mounted either on top of each front fender or on cowl. If mounted on cowl, distance from top edge of lamp to lower windshield line shall not exceed five inches. Mounting brackets or hoods for both front and rear lamps shall be of sufficient strength to withstand normal vibration. Those for rear lamps shall be streamlined to body to prevent hitching of rides.

k. Supervisor's light. The rearmost ceiling light or a separate light may be used as a supervisor's light. This light shall have a separate switch controlled by the driver so he may have this light on when traveling after sunset.

23.3(17) Mirrors. In addition to meeting the nationally recommended minimum standards hereinabove adopted, as the same relate to mirrors, a cross-view mirror of at least four inches in diameter shall be installed on the bus in such a manner that the seated driver may observe the area in front of the bus which could not otherwise be viewed from his position.

23.3(18) Seat belt for driver. A seat belt for the driver shall be provided, and shall be fastened to the bus floor immediately behind the driver's seat when adjusted to its rearmost position. Both the right and left half of this seat belt shall be equipped with a retractor and shall be held by a metal strap or loop of substantial material securely fastened to the seat frame in a manner that will keep the belt off the floor. All seat belts require special approval of the Iowa state commissioner of public safety.

23.3(19) Seats. In addition to meeting the nationally recommended minimum standards hereinabove adopted, seats shall meet the following requirements:

a. The backs of all seats of similar size shall be of the same width at the top and of the same height from the floor and shall slant at same angle with the floor. Backs of seats shall be free of coat rails.

b. The tops of back rests shall be not less than thirty-three and not more than forty-five inches above the floor level except that

tops of back rests on rear seats shall not be above bottom edge of rear windows.

c. The seat cushions shall be securely attached to the seat frames with a positive type retainer to keep the cushion from being completely dislodged from the seat frame if the bus overturns. The retainer should be secured to the front rail of the seat frame so the cushion can be raised for cleaning purposes. Spring clips do not meet this requirement.

d. Where beading is used it shall be double sewn in all seams to assure less splitting from flexing.

e. All seats shall be securely fastened with bolts and nuts with lock washers on that part or parts of the bus which support them.

f. The spacing of fiber glass seats shall be on a "knee space" basis with a minimum requirement of twenty-five inches between seats.

23.3(20) Seats in small vehicles. For small vehicles the following standards for seats apply in lieu of those in 23.3(19):

a. All seats shall be securely fastened to the body of the vehicle.

b. The seats shall be covered with fire-resistant padding material and comfortably upholstered with adequate padding. (Not applicable to fiber glass seats.)

c. Jump seats or portable seats shall not be used.

d. The seat beside the driver, if regular equipment or installed by vehicle manufacturer, may be used for pupil seating. It shall be securely fastened to the body and shall be so constructed as not to interfere with pupils entering or leaving the vehicle.

e. The allowable average rump width in determining the rated seating capacity of the bus shall be thirteen inches.

f. All seats shall be at least fourteen inches in over-all depth.

g. All seats shall be forward facing.

23.3(21) Seat rail padding.

a. The top seat rail of all school bus seats (except the two rear seats on either side), the crossbar back of the driver's seat on the left-hand side, and the top modesty panel cross bar on the right-hand side shall be covered with padding sufficient to minimize facial injury in case of impact.

b. The seat rail and crossbar padding shall be semidense sponge rubber or other shock absorbing material with similar resilient characteristics. The padding shall have a minimum nondepressed thickness of one inch.

c. The seat rail padding shall cover all of that part of the top seat rail likely to be struck by the heads or faces of pupils sitting back of it if they are thrown forward by impact.

d. The seat rail padding shall be covered with and held in place by a covering made of

the same material used to cover the padding of the seat cushion. The seat rail padding cover shall be securely attached to the seat back.

23.3(22) Steps. In addition to meeting the nationally recommended minimum standards, hereinabove adopted, as the same relate to steps, the surface of the steps shall be of non-skid rubber with ribbed tread and contrasting colored nosing. A full length assist rail shall be provided in an unobstructed location inside doorway.

23.3(23) Stop signal arm.

a. The stop signal arm shall be a flat eighteen-inch octagon, exclusive of brackets for mounting.

b. The arm shall be constructed of aluminum alloy with a minimum gauge of .080, and temper of 5052-H34 or equivalent.

c. It shall have the word "STOP" printed on both sides in white letters at least six inches high, with a brush stroke of approximately seven-eighths inch width, on a bright red background; the outer edge shall be painted white one-half inch wide.

d. The colors shall conform to the colors shown and specified in the American Association of State Highway Officials Manual for Signing and Pavement Marking of the National System of Interstate and Defense Highway, dated 1961 or latest issue. In addition, the colors shall be the same in daylight and at night under artificial headlight illumination. Reflective sheeting shall be uniform in color and reflectivity.

e. The entire sign, including letters, shall be reflectorized with "SCOTCHLITE" or equivalent, and must not lose over twenty percent of reflectivity when wet.

f. The sign shall be mounted outside the bus on the left side opposite the driver and immediately below the window. Rubber spacers shall be installed on either the side of the bus or the stop arm so as to prevent sign from making abrasive contact with the side of the bus.

g. It shall have a driver controlled mechanism, either manual or mechanical (vacuum), which will positively hold the sign in an extended or retracted position to prevent whipping in the wind. (Gears are not acceptable.)

h. An additional vacuum reserve tank with check valve is required for vacuum controlled arm.

i. The control mechanism must be mounted so the driver will remain in normal driving position while operating the stop signal arm.

j. All stop signal arms, including the mechanism, must have special approval of the state department of public instruction.

23.3(24) Storage compartment. A metal container of adequate strength and capacity for the storage of tire chains, tow chains and such tools as may be necessary for minor

emergency repairs while bus is enroute shall be provided. Such storage container may be located either inside or outside the passenger compartment but, if inside, it shall have cover other than the seat cushion and be securely fastened to floor or seat frame. The container must have a latch to keep the cover securely fastened to it in such a manner as to prevent the contents from spilling in case the bus overturns.

23.3(25) Sun shield. There shall be installed on the windshield header an interior sun visor which is double bracketed, adjustable and not less than six inches wide and thirty inches long.

23.3(26) Ventilation. Static type exhaust roof ventilators, nonclosing type, shall be installed in low pressure area of the front roof panel.

Exception—small vehicles.

This standard does not apply to small vehicles not manufactured specifically as school buses.

23.3(27) Windshields and windows. In addition to meeting the nationally recommended minimum standards, hereinabove adopted, as the same relate to windshields and windows, when full drop windows are used they must be blocked so that when in a down position, the opening between the window header and top of glass is not more than nine inches.

23.3(28) Windshield washers. The bus shall be equipped with windshield washers which shall conform to the body manufacturer's recommendations as to type and size for the bus on which they are to be used.

23.3(29) Windshield wipers.

a. The bus shall be equipped with two positive-action, variable-speed windshield wipers of air or electric type. All wipers by design and installation shall provide desirable vision for the driver.

b. Two separate heavy-duty motors, with separate switches, shall be provided and equipped with blades of sufficient length to clear the windshield glass in the driver's direct view.

c. The windshield wiper blades and arms shall be of the heavy-duty type. The blades must be at least fourteen inches in length.

d. All wiper controls shall be located within easy reach of the driver and designed, when in stop position, to move blades from the driver's direct view.

23.4(285) Small vehicles. "Small vehicles" are hereby defined, for purposes of these rules, as vehicles of less than twenty passenger capacity, and shall meet the following requirements.

23.4(1) Passenger cars, station wagons, and similar vehicles. Passenger cars, station wagons, carryalls, and similar vehicles may be used for lawful transportation of school pupils,

but may not stop on the traveled portion of the road to pick up and discharge such pupils, when said vehicles comply with the following requirements:

a. The vehicle must be of closed body type.

b. Passenger cars must be full size.

c. Body must be all steel or of a metal at least equivalent in strength to steel.

d. Vehicle must be equipped with:

(1) Four-wheel brakes properly adjusted to efficiently stop car when fully loaded.

(2) Hand brake adequate to hold vehicle when stopped on incline.

(3) Two windshield wipers.

(4) Rear-view mirrors—one inside and one outside on left side.

(5) Two taillights.

(6) Two stop lights.

(7) Multiple beam headlights (including indicator light).

(8) Switch to raise or lower headlight beam.

(9) Directional signals—front and rear (including indicator lights).

(10) Adequate horn.

(11) Interior adjustable sun visor.

(12) Adequate heating equipment.

(13) Heater defroster—an additional defroster fan for left windshield may be required.

(14) Safety glass throughout.

(15) Spare tire in good condition.

(16) Two school bus signs, one on front and one on rear, or one sign located on the top of the vehicle with printing on each side of the sign. Signs must be national school bus chrome in color with black letters six inches high. Sign shall be of type that can be dismounted, turned down, or covered when vehicle is not being used as a school bus.

(17) Dry chemical type fire extinguisher with a minimum capacity of two and one-half pounds and a rating of 8-B:C.

(18) First-aid kit containing at least ten units.

(19) Hand ax.

(20) In addition to meeting the foregoing requirements, carryalls and similar vehicles must have additional equipment as follows: Four red reflectors located approximately at floor level, one on each side at or near rear and two on the rear, one at each side; three sixteen-inch red flags; three thirty-minute fuses in canister with lid; and three reflector type flares.

23.4(2) Carryalls, travel-alls and similar vehicles. Carryalls, travel-alls, and similar vehicles may be used for the transportation of pupils, as provided in subsection 23.4(1), and when equipped as follows may stop on the traveled portion of the road to pick up or discharge pupils:

a. Must meet conventional school bus specifications listed in these standards for the following items:

(1) Color

(2) Identification

(3) Stop arm

(4) Flashing warning lights

(5) Reflectors

(6) Flags, flares, fuses

b. Must be equipped with rear-view mirror on right side in such position that the roadway on the right side of vehicle, beginning at service door, is visible from the driver's position.

c. Must meet all other requirements listed for small vehicles in preceding section which are not inconsistent with this section.

These rules shall be applicable only to buses purchased after September 1, 1968.

[Filed July 1, 1952; amended February 13, 1968, June 24, 1969]

TITLE XIII VETERANS' TRAINING

CHAPTER 24

APPROVAL OF ON-THE-JOB TRAINING ESTABLISHMENTS UNDER THE SERVICEMEN'S READJUSTMENT ACT

24.1 Application.

24.2 Inspection.

24.3 Report reviewed.

24.4 Wage schedules.

24.1(257) Application. In order to qualify as a training facility, the establishment must submit a written application on form as prescribed by this department.

24.2(257) Inspection. Upon receipt of the written application, it is checked by a staff member, and if there is any merit to the application, the establishment is visited and a detailed inspection is made to determine the correctness of the information given in the application.

24.3(257) Report reviewed. The inspector's recommendations are subject to the review of the director of the division.

24.4(257) Wage schedules. The employer shall observe the following points in setting forth the wage schedule for the training period:

1. The schedule shall set up for the entire period of training with provision for increases at regular intervals.

2. The starting wage and the wage paid during training cannot be less than the wage normally paid a nonveteran learner in this trade.

3. The starting wage shall not be less than fifty percent of the stated objective wage.

4. The wage schedule shall increase during each period of training until the employer is paying approximately ninety percent of the objective wage during the last period of training.

5. The wages shall be in conformity with state and federal laws and applicable bargaining agreements.

6. Wage schedules contained in applicable bargaining agreements, wages established by law, or other wage schedules established by large businesses which can be shown to be a matter of record will be recognized.

7. The after-training wage shall be the wage that is normally paid to a person who has had training equivalent to that contemplated by the proposed training program and who is beginning employment in the classification. Further raises which have been granted to other employees on the basis of length of service or loyalty to the firm should not be considered in determining the completion wage.

8. Since the employer is required to guarantee definite periodic wage increases, programs shall not be approved which contain a wage schedule set up on a commission basis.

[Filed July 1, 1952]

CHAPTER 25

APPROVAL OF EDUCATIONAL INSTITUTIONS FOR THE EDUCATION AND TRAINING OF ELIGIBLE VETERANS UNDER THE SERVICEMEN'S READJUSTMENT ACT

- 25.1 Colleges.
- 25.2 High schools.
- 25.3 Related courses for apprenticeship.
- 25.4 Schools of Bible or theology.
- 25.5 Schools of nursing.
- 25.6 Hospitals.
- 25.7 Schools of cosmetology.
- 25.8 Schools of barbering.
- 25.9 Flight schools.
- 25.10 Schools of business.
- 25.11 Trade schools.
- 25.12 Correspondence courses.
- 25.13 Evaluation standards.

25.1(257) Colleges. All colleges, universities, and junior colleges accredited by the state department of public instruction, the Iowa committee on secondary school and college relations, or the North Central Association are approved without further inspection.

25.2(257) High schools. All high schools accredited by the department of public instruction are approved without further inspection.

25.3(257) Related courses for apprenticeship. Approved upon recommendation of the department of vocational education without subsequent inspection.

25.4(257) Schools of Bible or theology. Must be recommended by a recognized accrediting agency in the theological field. Subject to inspection following receipt of written application.

25.5(257) Schools of nursing. Must be recommended by the Iowa state board of nurse examiners. Subject to inspection following receipt of written examination.

25.6(257) Hospitals. (Residencies, medical technologists, X-ray technicians, etc.) Must be recommended by the council on medical education and hospitals, American Medical Association, and the Iowa state department of health. Subject to inspection following receipt of written application.

25.7(257) Schools of cosmetology. Must be recommended by the board of cosmetology examiners, department of health. Subject to inspection following receipt of written application.

25.8(257) Schools of barbering. Must be recommended by the board of barber examiners, department of health. Subject to inspection following receipt of written application.

25.9(257) Flight schools. Must be recommended by the U. S. civil aeronautics authority and the Iowa department of aeronautics. Subject to inspection following receipt of written application.

25.10(257) Schools of business. Subject to inspection following receipt of written application.

25.11(257) Trade schools. Same as 25.10(257) above.

25.12(257) Correspondence courses. Must have operated successfully in Iowa for at least three years. Subject to inspection following receipt of written application.

All of the above institutions, except public or other tax-supported schools, must operate successfully in Iowa for at least one year prior to approval. With respect to correspondence courses, three years of successful operation is required.

The one-year requirement may be waived when the institution submits positive evidence that the school is essential to meet the requirements of veterans in the state of Iowa.

The written application referred to in the above shall include the following information:

25.12(1) Name, address, and telephone number of the school.

25.12(2) Names and qualifications of owners and managers of the school.

25.12(3) Statement concerning the date the school was established, and the period of time school has been under the present management.

25.12(4) Statement as to the financial solvency of the school, and assurance that school will continue operations for a considerable period of time.

25.12(5) Statement concerning the school's accreditation by any recognized accrediting agencies, if any.

25.12(6) Statement concerning present enrollment and maximum number of students proposed to be trained in the courses at one time.

25.12(7) Description of the physical plant of the school, giving the number and size of classrooms; type of heating, lighting and ventilation, blackboard space; number of toilets and lavatories; number and kinds of desks, tables, chairs and other school furniture; total floor space; and a listing of all laboratory and classroom equipment available for instruction.

25.12(8) Names and educational and experience qualifications of all instructors.

25.12(9) Statement of the educational prerequisite for each course.

25.12(10) Statement as to the exact title of the course and specific description of the objective for which given.

25.12(11) Statement as to the length of the course(s) in weeks; number of hours school is in session per week.

25.12(12) A detailed curriculum must be attached showing subjects taught, type of work or skills to be learned, and approximate length of time to be spent on each.

25.12(13) Samples of permanent records showing students' conduct and progress are to be enclosed, as is a sample certificate or diploma issued students upon satisfactory completion of the course of study.

25.12(14) Statement as to tuition costs, and costs for required books, supplies and equipment.

25.12(15) Statement concerning graduates' placement during the year preceding date of application.

25.12(16) Statement that school buildings meet local and state regulations concerning fire, safety, and health.

Upon receipt of the written application, it is checked by a staff member, and if there is any merit to the application, the school is visited and a detailed inspection is made to determine the correctness of the information given in the application.

25.13(257) Evaluation standards. The following standards are used in evaluating a school:

25.13(1) The curriculum and instruction must be consistent in quality, content, and length with similar courses in the public schools or other private schools with recognized and accepted standards.

25.13(2) Each school must have a system for keeping attendance, progress, and placement records which is acceptable to this department. Records must be kept up-to-date and reports must be prepared and submitted as requested. Furthermore, school records must be made available for inspection on request of department representatives.

25.13(3) School must have clearly stated and enforced standards of attendance, progress, and conduct. Such standards must be acceptable to this department.

25.13(4) The school must give appropriate credit for previous training or experience, with training period shortened proportionately. No course of training will be considered bona fide as to a veteran who is already qualified by training and experience for the course objective.

25.13(5) The school must provide the student and the veterans' administration with a copy of the approved curriculum.

25.13(6) Upon completion of the training, the school must give the veteran a certificate indicating the approved course, title, and length and that the training was completed satisfactorily.

25.13(7) The school must have a clear statement as to entrance qualifications and must abide by them.

25.13(8) The school must have sufficient toilet facilities to adequately serve the enrollment.

25.13(9) Each school must provide at least twenty-five square feet of floor space for each student in a classroom; and at least forty square feet in laboratories or shop rooms for each student training therein.

25.13(10) Heat, light, and ventilation shall be adequate for the type of instruction and enrollment in the school. Thirty foot-candles of light shall be considered minimum where reading is done.

25.13(11) School buildings must meet local and state regulations concerning fire, safety, and health.

25.13(12) Schools must be ethical in their advertising and solicitation. Both are subject to review and approval by this department.

25.13(13) Instructors for a trade school shall have at least three years of experience in the trade as a journeyman, above the learning level. Instructors in other schools shall hold appropriate certificates, licenses, or degrees.

25.13(14) The student-instructor ratio may not exceed thirty-five to one in any classroom activity, and may not exceed twenty to one in any laboratory or shop activity unless the school is licensed by another agency of the state. The ratio in flight schools must be based on requirements of the U.S. civil aeronautics authority.

25.13(15) While schools may not guarantee employment upon graduation, a school should exert every effort to assist its graduates in obtaining employment.

25.13(16) Tuition and other charges made by school should be clearly set out in publications of the school.

25.13(17) Schools should make use of modern teaching aids and procedures.

[Filed July 1, 1952]

TITLE XIV
VOCATIONAL EDUCATION

CHAPTER 26
VOCATIONAL EDUCATION
PROGRAMS

26.1(258) Standards for vocational education. Vocational education programs carried on under the provisions of chapter 258 of the Code shall be governed by and administered pursuant to the Acts of Congress accepted by said chapter, the provisions of said chapter, duly-adopted rules of the federal agencies involved and the current federal-state contracts or plans approved pursuant to said statutes and rules.

[Filed October 18, 1969]

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Reserved for future use

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VOCATIONAL EDUCATION—
REHABILITATION

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DIVISION I
AGENCY FOR ADMINISTRATION

35.1(259) Designation of state board. The state board for vocational education is designated as the sole agency for the administration, supervision and control of the state plan except as indicated in section 35.2(259).

35.2(259) Vocational rehabilitation of the blind. The commission for the blind is authorized by state law to rehabilitate the blind.

The following definition of blindness observed by the department of public welfare in determining eligibility for blind assistance is the basis for allocating cases between the two agencies:

"An individual approved for blind assistance shall be one who has no vision, not more than 20/200 central visual acuity in the better eye with correcting glasses, or a field defect, in which the peripheral field has contracted to such an extent that the widest diameter of visual field subtends at an angular distance of no greater than twenty degrees."

35.3(259) Responsibility of the state board. The state board assumes responsibility for the statistical and financial reports containing estimates of expenditures, accounting for federal funds and the furnishing of other information to meet federal requirements found necessary by the federal director.

35.4(259) Plan materials and reports.

35.4(1) The superintendent of public instruction as chairman and executive officer of the state board may act for the board in approving plan material that does not involve a major change in policies.

35.4(2) The plan and all amendments thereto shall be transmitted to the federal director by the state director of the rehabilitation division with a statement over the signature of the executive officer indicating the effective date and the fulfillment of any conditions necessary to its operation. Plan materials relating to the rehabilitation of the blind will also indicate the date of adoption by the commission for the blind.

35.5(259) Plan materials and reports — agency for the blind.

35.5(1) Plan materials and reports of the commission for the blind will be submitted to the federal director through the state board according to special agreement.

35.5(2) An agreement exists between the state board and the commission for the blind which provides that plan materials and reports transmitted to the federal office by the commission will be of the same effect as though transmitted by the state board if: (a) Copies of such plan materials and reports are simultaneously furnished to the state board; (b) such plan materials and reports indicate that copies have been furnished to the state board; (c) within a specified period after the transmission of such materials the executive officer of the state board has not advised the federal director that for any reason the state board does not concur in such material.

35.6(259) Legal basis. Certified copies of all laws, including current appropriation laws, pertaining to the administration of the division

of vocational rehabilitation are included as attachments to this plan.

DIVISION II
ELIGIBILITY

35.7(259) Responsibility for determination. The division of vocational rehabilitation assumes responsibility for determination of individuals for vocational rehabilitation, and of the nature and scope of vocational rehabilitation services to be provided such individuals; and such responsibility will not be delegated to any other agency or individual not on the staff of the division.

35.8(259) Residence. Six months of residence is required to establish eligibility for rehabilitation services; however, applicants who have resided in the state for less than six months may be accepted for service upon submission of satisfactory evidence of intention to remain as permanent residents. If applicant is a former resident of another state, a summary of that state's case record will be sought as a part of investigative procedure.

35.9(259) Criteria of eligibility for vocational rehabilitation. Eligibility for vocational rehabilitation will be determined upon the basis of two established criteria: The existence of a physical or mental disability; and a substantial employment handicap resulting from such disability.

35.10(259) Criteria of eligibility for specific services. The following criteria are established for determination of eligibility of clients for the following services:

35.10(1) Physical restoration.

- a. The service is necessary for the individual's satisfactory occupational adjustment.
- b. The condition causing disability is relatively stable or slowly progressive.
- c. The condition is of such a nature that treatment may be expected to remove, arrest or substantially reduce the handicap within a reasonable length of time.
- d. The prognosis for life and employability are favorable.

35.10(2) Training and training materials.

- a. The training and books and supplies are necessary for the individual's satisfactory occupational adjustment.
- b. The individual has the mental and physical capacity to acquire a skill that he can perform in an occupation commensurate with his abilities and limitations.

35.10(3) Transportation, occupational licenses and occupational tools and equipment.

- a. An individual may be provided transportation in connection with securing medical or psychological examinations, physical restoration, training or placement and a companion may be transported at rehabilitation expense if the disabled individual cannot travel alone.

b. An individual is eligible for occupational licenses and customary occupational tools and equipment when such services are necessary for entrance into, and successful performance in, a selected occupation.

35.10(4) Maintenance. A client is eligible for maintenance when it is necessary to his vocational rehabilitation.

Financial need must be established prior to provision of certain services at rehabilitation expense. Individuals are eligible for physical restoration, occupational licenses, customary occupational tools and equipment, training materials, maintenance and transportation (except transportation for diagnosis, guidance or placement) only on the basis of financial need and when such services are not otherwise immediately available. Federal reimbursement for these services will be requested only for disabled individuals found to require financial assistance with respect thereto.

35.11(259) Nondiscrimination. The division observes the principle that sex, race or color do not justify inequality in the determination of eligibility and in the provision of necessary rehabilitation service.

35.12(259) Classes of individuals to be rehabilitated. The division makes rehabilitation services available only to such classes of disabled individuals who through rehabilitation services may be made employable, or more suitably employable; and individuals who are severely disabled or homebound are not excluded.

35.13(259) War-disabled civilians and civil employees of the United States. The division accepts for vocational rehabilitation under the state plan any individual certified by the federal director as a war-disabled civilian or a civilian employee of the United States disabled in the performance of his duty, who is a resident of the state or who chooses the state as and for his residence.

All necessary rehabilitation services, other than maintenance will be made available to persons so certified irrespective of the individual's financial need.

35.14(259) Hearings on applicants' appeals. Disabled persons may appeal from the decision of any counselor to a district case board (supervisor and two other counselors). Appeals from the decision of a district case board will be heard by the state case board (director and two supervisors), or in instances where the district case board cannot properly function the case may be heard originally by the state case board. In making his appeal to the state case board the client is required to set forth his contentions in writing and submit them to the state director at least ten days prior to the date of the hearing. The individual may be accorded an appeal from the state case board to the state board for vocational education if the state director and the executive officer of the board agree that the problem merits fur-

ther review. Notification of the right to appeal is verbal in the first instance; in the second instance the written decision of the district case board will include notification of the right to appeal to the state case board.

DIVISION III CASE FINDING

35.15(259) Finding and intake. The organized program of case finding now in effect at both the local and state level will be maintained and improvements will continuously be sought. Counselors share the responsibility for developing referral arrangements with local co-operators and accepting referrals in the field for prompt handling. All new cases whether referred to a local worker or to the state office are checked against a master index for previous information and are acknowledged promptly by letter or a personal call. Public information directed to all known sources of referrals as well as to the general public seeks to localize all disabled individuals of employable age who may be eligible, interpret rehabilitation to them and ascertain whether or not they are interested in or in need of the services offered.

35.16(259) Working arrangements with other agencies. In order to facilitate the over-all case finding program the division establishes wherever possible working relationships with public and private agencies in areas of health, welfare, compensation, education, employment and other related services.

DIVISION IV CASE DIAGNOSIS

35.17(259) Scope of diagnosis. The case diagnosis constitutes a comprehensive study of the client, including medical as well as a vocational diagnosis of the individual.

35.18(259) Basis of diagnosis. The case diagnosis in each case is based on pertinent information, including the individual's health and physical status, intelligence, educational background and achievements, vocational aptitudes and interests, employment experience and opportunities, and personal and social adjustments.

35.19(259) Medical diagnosis.

35.19(1) As a basis for determination of eligibility and formulation of the individual's rehabilitation plan the division secures competent medical diagnosis and provides every case with the opportunity for a general medical examination. Where reasonably necessary to a decision in doubtful cases, the diagnosis is, if at all practicable, secured from recognized specialists in specific fields indicated by the general medical diagnosis.

Whenever possible the diagnosis is accompanied by recommendations as to the means and methods of restoration and by a statement of any physical or mental limitations that may exist.

35.19(2) The division accepts a medical report in lieu of securing a new examination when such report is from a reliable source and can be relied upon to provide a sound basis for diagnosis of the physical or mental condition of the individual.

35.19(3) Minimum procedures routinely required in the general medical diagnosis are a determination of the physical and mental abilities and limitations of the individual including blood serologic tests, urinalysis and other necessary laboratory tests.

35.19(4) Hospitalization for diagnostic purposes is provided by the division upon proper medical recommendation and upon approval of the medical consultant or supervisor. Normally such hospitalization is not for more than three days and in no case does it exceed ten days.

35.20(259) Vocational diagnosis. The methods of the vocational diagnosis include counseling interviews with the client; such reports as may be needed, including when necessary in the individual case, reports from schools, employers, social agencies, and others; psychological information substantiating the determination of eligibility where such eligibility is based on the existence of mental retardation; and exploratory services, services provided by workshops or centers, and short tryout courses.

DIVISION V RECORDING CASE DATA

35.21(259) Division files. The division maintains a record for each case which includes pertinent case information including as a minimum, the basis for determination of eligibility, the basis justifying the plan of services and the reason for closing each case together with a justification of the closure. Records and case files may be destroyed when deemed obsolete by the director but in no instance shall such records be destroyed until five years after both state and federal audits have been completed and satisfactory adjustments made. A summary card showing pertinent facts will be retained on all case files retired in this manner.

DIVISION VI CONFIDENTIAL INFORMATION

35.22(259) Rules and regulations. The division maintains in effect such rules and regulations as are necessary to assure that all information as to personal facts and circumstances of clients given or made available to the division, its representatives, or employees in the course of administration of the vocational rehabilitation program, including lists of names and addresses and records of evaluation, will be held to be confidential.

35.23(259) Use and exchange of information.

35.23(1) The use of such information and records is limited to purposes directly connected with the administration of the vocation-

al rehabilitation program, and is not disclosed, directly or indirectly, other than in the administration of the program, unless the consent of the client to such release has been obtained either expressly or by necessary implication.

Release of information to employers in connection with placement is considered as a release of information in connection with the administration of the program.

35.23(2) Such information is released to other welfare agencies or programs from which the client has requested certain services under circumstances which presume his consent, provided such agencies have adopted regulations which assure that the information will be held confidential and be used only for the purposes for which it was intended.

35.23(3) All such information is the property of the division and may be used only in accordance with the division's regulations.

35.23(4) Procedures and standards. The division has adopted such procedures and standards as are necessary to (a) give effect to its regulations; (b) assure that clients and interested persons will be informed as to the confidentiality of rehabilitation information and that a copy of the division's regulations is available to them; and (c) assure the adoption of such office practices and the availability of such office facilities and equipment as will assure the adequate protection of the confidentiality of such reports.

DIVISION VII PLAN FOR INDIVIDUALS

35.24(259) Formulation of the plan. The division formulates an individual plan of rehabilitation for each eligible individual to whom rehabilitation services are to be furnished. Such plans are formulated on the basis of an evaluation of all data secured through the case diagnosis.

35.25(259) Content of plan. The individual plan summarizes diagnostic findings, sets forth the services necessary to accomplish the individual's vocational rehabilitation, the way in which these services are provided, the estimated costs, and the established job objective.

35.26(259) Client's participation and approval. The individual plan is formulated with the individual's participation and approval and provides for all rehabilitation services that are recognized to be necessary to fully accomplish the individual's vocational rehabilitation whether or not such services are at the expense of the rehabilitation division.

35.27(259) Conditions for undertaking the individual plan. The basic conditions to the undertaking of the individual plan are: (1) The belief of the division that when concluded it will satisfactorily achieve the individual's vocational rehabilitation; and (2) that all services are to be carried to completion, provided, however, that the division exercises its discre-

tion in relation to the termination or revision of the individual's plan when, for any reason, it becomes evident that the above underlying conditions will not be met or when the financial condition of the individual or the division makes termination necessary.

35.28(259) Trainee co-operation. The division requires good conduct, regular attendance and co-operation of all individuals engaged in rehabilitation training but believes that these requirements will usually be achieved through the maintenance of the previously developed counseling relationship rather than by an authoritative approach. The division makes the following provisions for assuring itself of trainee co-operation: Instruction, verbally or by pamphlet, emphasizing the importance of these factors to the success of the individual plan; advising each trainee at the beginning of the program just what is expected of him and that services will continue only if his progress, attitude and conduct are satisfactory; requiring periodic progress, grade and attendance reports from the training agency; maintaining personal supervision of each training program by a counselor—the intensity of supervision as specifically outlined in the Manual of Operations Procedures depends upon the type of training and the individual problems involved; promptly calling the trainee's attention to evidence of unsatisfactory progress or attendance before such conditions become serious; providing encouragement to the trainee to promote good work habits with due commendation for effective effort; maintaining good relationships with the training agency and with one instructor or advisor on the school staff responsible as a co-ordinator. A co-ordinator is an absolute requirement in all out-of-state resident training programs.

DIVISION VIII SERVICES

35.29(259) Scope of services.

35.29(1) All necessary vocational rehabilitation services, including counseling, physical restoration, training and placement are made available to eligible individuals to the extent necessary to achieve their vocational rehabilitation.

35.29(2) The division in selected instances assumes responsibility for providing short periods of medical care for acute conditions arising in the course of rehabilitation, which, if not cared for, would constitute a hazard to the achievement of the rehabilitation objective because of the client's limited funds and the unavailability of free medical services.

35.29(3) Duration of training. Rehabilitation training is provided according to the actual needs of the individual case and is limited to the amount of such training necessary to fit the client for the vocational objective agreed upon.

35.30(259) Counseling and guidance.

35.30(1) Systematic counseling and guidance for the benefit of each individual is provided from acceptance to completion of all services included in the rehabilitation plan.

35.30(2) Service reports. Adequate reports are obtained at reasonable intervals from physicians, schools, hospitals, employers and other agencies providing services to rehabilitation clients and such reports become a part of the individual case files.

35.31(259) Placement.

35.31(1) The division recognizes that satisfactory employment is the objective of all services of preparation and that placement is an integral part of the rehabilitation program. The division assumes responsibility not only for preparing the disabled for jobs and training them in techniques in securing their own jobs, but also for accomplishing the actual placement, either directly or indirectly, of all eligible disabled individuals receiving rehabilitation services. Prompt selective placement following preparation is always sought.

35.31(2) Provision is made for a reasonable period of post placement follow-up to insure that placement has been successfully accomplished.

35.32(259) Working arrangements. The division co-operates with federal and other state agencies providing vocational rehabilitation or similar services and written agreements providing for interagency co-operation may be entered into at the discretion of the state board.

DIVISION IX FACILITIES

35.33(259) Types of facilities. It is the policy of the state division to use any type of public or private facility which is equipped to render the required services of diagnosis, physical registration, training and placement. Such facilities include public and private schools, colleges and universities, correspondence schools, tutors, agencies or individuals for personal adjustment training, business and industrial establishments for employment training, psychometric service agencies, physicians and dentists, hospitals, sanatoria and clinics, audiometric service centers, rehabilitation centers, occupational, physical and work therapists or agencies providing these services, hospitals and convalescent homes, nurses, prosthetic appliance dealers, and other similar facilities that are adequately equipped to contribute to the rehabilitation of the disabled.

35.34(259) General standards. It is the policy of the division to use only those facilities which meet standards indicating that the services offered are of high quality. Indications of these standards are accreditation, approval or certification by a recognized agency if such exists; use of the facility by other public

agencies; reputation and community standing; or investigative survey by the division to determine adequacy of professional and technical qualifications of personnel; quantity and quality of equipment and quarters; scope and completeness of services including guarantee of materials and workmanship in case of artificial appliances.

35.35(259) Standards for hospitals. Hospitals approved by the American College of Surgeons will be used when available. In areas where approved hospitals are not available a local hospital approved by the medical consultant may be used, but only in cases in which the physical condition to be corrected is one which does not present a serious problem and is the type that is commonly handled in that hospital by local physicians. To the extent that is practicable, preference will be given to hospitals with more than one hundred beds with well developed surgical and specialty services which have submitted satisfactory reimbursable cost statements.

35.36(259) Standards for persons providing physical restoration services.

35.36(1) Persons providing physical restoration services must meet standards which insure services of high quality. Clients have free choice of professional persons meeting these standards to the extent that such is reasonable and appropriate.

35.36(2) Medical diagnosis and treatment are provided only by physicians licensed to practice medicine and surgery and who are otherwise qualified by training and experience to perform the specific services required. In instances where qualifications are questionable decision as to the acceptability of a physician is made by the medical consultant. Whenever possible, well organized clinics offering services of high quality or recognized medical schools are used.

Standards for physical therapists and occupational therapists are those adopted by the Council on Medical Education and Hospitals of the American Medical Association. Therapists working under approved medical supervision in hospitals approved by the American College of Surgeons are assumed to have acceptable qualifications. When personnel of such qualifications are not available other experienced therapists may be used under medical supervision.

Standards for graduate nurses are those adopted by the state board of nursing examiners. Practical nurses are used only when absolutely necessary and when considered qualified as to education and experience in the opinion of local physicians.

Dental diagnosis and dental treatment are provided only by dentists who are licensed to practice dentistry and are otherwise qualified by training and experience to perform the specific dental services required.

35.36(3) The division determines which of the services required by a client are specialty

services and such specialty services are rendered only by physicians found by the division to be specialists qualified to perform the particular services required.

35.36(4) It is the policy of the state division to select specialists according to the following standards and in descending order of preference:

a. Diplomats of an American board in a medical specialty.

b. Those eligible for certification as such diplomats.

c. If a physician of one of the first two groups is not available or is not the acceptable choice of the client, other doctors of medicine who are recognized as being qualified in the specialty may be selected by the medical consultant after conferring when necessary with members of the professional advisory committee or local physicians.

35.37(259) Standards for facilities providing specialized training or other services. The division selects its training agencies on the basis of their ability to supply the quality of training desired. The general practice of the division is to utilize the facilities of accredited or approved colleges, universities, trade and commercial schools for residence and correspondence training.

35.37(1) Tutorial training. The standards of selection of tutors will be based upon adequate training and experience in the field in which the instruction is to be given. Insofar as possible these tutors will meet the educational standards for instructors in the regular fields of education.

35.37(2) On-the-job training. Agencies selected for employment training must have personnel qualified with respect to personality, knowledge and skill in the technique of instruction, have adequate equipment and instructional material and be willing to make definite provision for a plan of graduated progress in the job to be learned according to an efficiently organized and supervised instructional schedule.

35.37(3) Personal adjustment training. In addition to other standards set for tutorial and on-the-job training, an important basis for selection of facilities for personal adjustment training is a sympathetic understanding of the personal adjustment needs of the individual and their importance to the client's total rehabilitation.

35.37(4) The standards for facilities used in purchasing testing services are: (a) That the service be secured from the psychological department of a recognized educational institution or counseling service, or (b) that the testing be performed by a competent psychologist or psychometrist qualified by adequate training and at least one year of successful experience. Test technicians must be practical in their interpretation of test results to the division and be willing to recognize that they are

not employed to do direct counseling with the disabled since the counseling done by the division must be based on all diagnostic information including results of objective measurement.

35.37(5) *Determination of compliance with standards.* The division will use the following methods of determining compliance with standards: Careful surveys will be made when deemed necessary of all pertinent factors, including qualification of instructors or other personnel concerned, adequacy of quarters and instructional or other equipment, the use of well organized instructional schedules, the use of good materials, and business integrity with the provision of conscientious complete service.

DIVISION X ECONOMIC NEED

35.38(259) **Establishment of need.** The division establishes the client's economic need prior to providing physical restoration including prostheses, transportation (for other than diagnostic guidance or placement purposes), maintenance, occupational licenses, tools and equipment and training books and supplies except that financial need is only considered when providing maintenance for war-disabled civilians or civil employees of the United States.

In determining economic need the clients, or, in the case of minors, their parents, guardians or responsible relative, are required to make a specific declaration regarding all capital assets and income from any source that may be applied toward the cost of rehabilitation services except those of diagnosis, counseling, training and placement which are provided without regard to economic need.

It is considered desirable to secure an appraisal of the client's financial situation in every instance, however, in order to be certain that the client possesses the resources necessary to carry his part of the planned program through to completion. A properly signed financial inventory which certifies as to the total resources available and agrees to notify the division in event of significant change is required prior to the approval of any plan requesting the purchase of services and such inventory becomes a part of the individual's case file. If there is any doubt as to the accuracy of information submitted on the signed inventory, further investigation is made to determine the correctness of the data collected.

The following policies are observed in making determination of need based upon the findings:

35.38(1) All services requiring the determination of financial need are provided on the basis of supplementing the resources of the client or those responsible for him.

35.38(2) Personal savings, especially the income from the client's own earnings, are not required to be invested in the rehabilitation

program to the extent that the individual's future security may be jeopardized.

35.38(3) Consideration will be given to the client's responsibility for the maintenance of his dependents and he will be expected to reserve sufficient funds to meet his family obligations and provide for their future care, education and medical expense.

35.38(4) Consideration will also be given to such factors as prior obligations as well as to the desirability of conserving the client's own resources for future rehabilitation purposes such as becoming established in business or providing himself with a business automobile required for his transportation or employment.

35.38(5) Income or resources which are considered must be real and should not include apparent assets that are actually liabilities and produce no income.

35.38(6) The income or resources should be available to the client, that is, actually on hand, free from prior obligations and ready when needed.

35.38(7) Income or resources up to a reasonable amount should be considered from the standpoint of its conservation and its maximum utilization to the long term interest of the client. Small casual earnings and unpredictable gifts of indeterminate value should not be counted as resources.

35.38(8) Financial aid from public assistance is disregarded as a resource except as it applies to maintenance.

35.38(9) Since the major and fundamental purpose of the rehabilitation program is the upbuilding and maintaining of attitudes of independence and self-reliance among disabled persons, every effort is made to avoid impoverishing the individual by exhausting his accumulated resources or requiring that he mortgage his future.

35.39(259) Standards for determining amount of supplementation.

35.39(1) The amount of financial supplementation that is required to meet the cost of necessary services in any individual rehabilitation plan requiring the establishment of need is determined in the following manner: (a) The total cost of the services to be provided is determined; (b) the net available resources of the client which may be used to apply toward the purchase of these services is calculated; (c) the division assumes that portion of the cost which is not covered by the client's available resources; (d) when it is not reasonable to expect any of the client's resources to be applied the total cost of the services is assumed by the division.

35.39(2) In providing maintenance, the dollar standard method of determining need is followed. The standard is changed as advisable to reflect changes in living costs and varies

according to type and size of community, kind of training program and other factors affecting living standards. In no case, however, does the maximum maintenance allowance exceed twenty dollars per week except that in cases where special diets, medicines or special transportation must be provided for severely disabled individuals or during a special training program, the maximum amounts in the dollar standard may be increased by twenty percent.

35.39(3) Goods and services provided are required to be of standard quality, avoiding both inferior and luxury types of purchases, and are required to be provided in such amount and at such time as will contribute most to the satisfactory consummation of the client's rehabilitation plan.

35.39(4) The cost of care during short periods of acute illness as set forth in 35.29(2) is paid for clients in financial need at the rates specified in the fee schedules. These amounts may be in addition to payments under the dollar standard.

35.39(5) The standards set forth in this section are uniformly applied.

35.40(259) Resources of client. In determining the economic circumstances of the individual the division takes into consideration all consequential resources available to the individual, however derived, including any benefit to which the individual may be entitled by way of pension, compensation, insurance, services in kind, or remuneration in connection with employment training. In appraising the income level of the individual, consideration is given to all factors above set forth.

35.41(259) Rules respecting capital assets. The general policy of the division (subject to the special provisions indicated above) with respect to the extent that capital assets not constituting current income may be disregarded in determining the economic circumstances of the individual is:

35.41(1) The "reasonable amount of capital assets" which may be disregarded in determining need for assistance is established as: (a) Any form of life insurance; (b) real property which consists mainly of a home for himself or dependents; (c) personal property in any amount needed to carry on his business or earn his livelihood, that is: Necessary stock and equipment and business automobile are exempt as are cash or liquid net assets up to five hundred dollars if client has no dependents or one thousand dollars if client has dependents.

35.41(2) Capital assets representing the client's earnings from his own labor are given special consideration as are other factors connected with the client's long term responsibilities as set forth under 35.38(259).

DIVISION XI
PERSONNEL ADMINISTRATION

35.42(259) Methods and policies of selection and appointment. The personnel administra-

tion of the division is conducted in accordance with the standards, rules and regulations provided by state law. Acting within the scope of state personnel legislation currently in effect the board for vocational education selects and appoints all personnel upon recommendation of the director of the division and the executive officer of the board. This procedure applies also to promotions, thus insuring that no individual will be appointed or promoted except on the basis of fitness, merit and experience and unless it is believed that he possesses all the qualifications required for the position and otherwise merits the appointment or advancement. Demotions and discharges of professional workers are made according to the same procedure and in accordance with state personnel regulations currently in effect but authority is delegated to the director to adjust work assignments, re-establish territories, designate actual official residences or transfer employees within the division whenever such action, in his opinion, contributes to the efficiency of the division and is carried out in accord with state personnel regulations currently in effect. The state board for vocational education also delegates to the director the authority to immediately suspend any professional worker for cause or discharge any clerical worker for cause subject to provisions of state personnel legislation currently in effect. The director reports in writing all such action to the executive officer and final action as to the termination or reinstatement of suspended professional workers rests with the board.

It is recognized that only the highest caliber of personnel should be engaged in molding the vocational future of the handicapped and therefore the education, experience, and personal qualifications of all professional workers are required to equal or exceed the highest standards required of professional employees in the state department of public instruction. The relative merits of all applicants are weighed and selection is made from among those available possessing the highest qualifications for specific positions. Applicants submit written statements of their education and experience to the executive officer through the director who personally interviews the applicants and investigates their records and qualifications. Transcripts of college credit, records of graduate study and copies of theses, dissertations or other professional writings and accomplishments are required to be submitted for review. The director reports the results of his interviews and investigations and makes recommendations to the executive officer who makes appointments with board approval. The board delegates authority to the director to investigate, select and employ clerical workers as needed to carry on the operating program of the division but requires that such action be in accord with accepted personnel regulations and be reported in writing to the executive officer. All appointments and promotions on the professional or clerical staff are considered

to be on a probationary basis for the first year or to the extent consistent with state personnel regulations currently in effect.

35.43(259) Separation of permanent employees. No permanent employee engaged in the day-to-day administration of the program is discharged except for cause or for reasons of curtailment of work or lack of funds, and that in event of separation, he shall have the right of appeal through established procedure and opportunity for a fair hearing consistent with personnel legislation currently in effect.

35.44(259) Participation in political activity. Personnel employed in the day-to-day administration of the program will be prohibited from participation in political activity as required by the federal government except that an employee shall have the right to express his views and cast his vote.

35.45(259) Personnel qualifications. The qualifications here stated are the minimum to be applied in the appointment of new employees and it is the policy of the board to secure whenever possible persons whose qualifications exceed those established as the minimum in an effort to engage only the best prepared and highest caliber of individuals to meet the challenge of rehabilitating the handicapped.

The following minimum qualifications are required of junior vocational counselors or of any employee appointed on a temporary, probationary or permanent basis to do direct interviewing and vocational diagnosis, counseling and plan building:

35.45(1) Personal qualifications.

a. Physical stamina. Physical ability and energy required to meet the rigorous duties of rehabilitation service.

b. Initiative, resourcefulness, and persistence. Aggressiveness in originating, planning, and carrying out an undertaking; the ability to find the ways and means of accomplishing it; and the tenacity in following it through to completion.

c. Moral standards. High moral standards, business integrity, and sympathetic understanding of handicapped persons.

d. Adaptability. The capacity to get along with others whatever their social or economic status, to understand the viewpoint of others and to discuss matters connected with vocational rehabilitation with an open mind and without becoming argumentative.

e. Maturity of judgment. Good common sense in meeting situations, handling people, and in helping the disabled to lay sound plans for carrying through logical rehabilitation programs to successful conclusion.

f. Emotional stability. Free from peculiarities of temperament or behavior and from timidity and shyness in meeting and dealing with people.

g. A good command of English. Ability to speak and write with a reasonable degree

of correctness and to express himself clearly.

h. Co-operativeness. Willingness to work harmoniously with his co-workers and to carry out the details of his work according to instructions and in line with approved policies.

35.45(2) Educational qualifications.

a. A minimum of formal education as represented by graduation from a four-year course in an accredited college or university or four or more years of such training satisfactorily completed above graduation from high school.

b. Preference is given to persons whose major educational preparation has been in technical fields related to vocational rehabilitation, such as vocational guidance, personnel or industrial management, educational administration, specialized social work or applied psychology.

35.45(3) Experience qualifications.

a. A minimum of three years recent, full-time, paid experience during which the individual has demonstrated personal qualities as indicated above.

b. Other factors being equal preference is given individuals having two or more years experience in one or a combination of the following fields:

(1) Full-time vocational counseling and guidance work with adults or vocational rehabilitation work involving counseling, training, physical restoration and placement of disabled persons.

(2) Selection, training, employee counseling, and vocational adjustment of employees in a commercial or industrial concern or public agency employing fifty or more persons.

(3) Public or quasi-public employment service with major responsibility for employee placement and employer contacts through actual field work.

(4) Instructor in skilled trades or vocational courses or a supervisor of such training.

(5) Workmen's compensation referee or claims adjudication officer or job adjustment specialist.

Junior vocational rehabilitation counselor. The above statement of minimum personal, educational and experience qualifications applies to the junior vocational rehabilitation counselor. An employee is classified as a junior vocational rehabilitation counselor during a period of temporary or probationary employment, thereafter, if his services are satisfactory, he is added to the permanent professional staff as counselor unless promoted to an advanced classification by approved procedures. Counselors whose services are otherwise satisfactory but who are unable to meet the minimum production standard for full-time counselors employed by the division are retained as junior vocational rehabilitation counselors or are reduced to that status upon the recommendation of the director, who will take into consideration the quality of work

being performed, types of difficult cases being served, and other factors affecting production. This policy will not be applied in such a manner that will discourage quality work or encourage the acceptance of "easy" cases.

Vocational rehabilitation counselor. The minimum qualifications listed above apply to this position and the qualities required must have been demonstrated by successfully passing the probationary period of employment and meeting quantitative and qualitative standards of production.

Senior vocational rehabilitation counselor. In addition to the qualifications of counselor, the senior vocational rehabilitation counselor must hold a master's degree or other technical experience or training in a specialized area of service connected with some phase of rehabilitation and have demonstrated by five or more years of employment to be qualified for handling specialty services to the disabled within the rehabilitation program.

District supervisor. In addition to the minimum qualifications of counselor, the district supervisor must have demonstrated by two or more years additional case work or technical experience in vocational rehabilitation or by one year of such experience and additional specialized training to possess the abilities to perform the duties outlined for this position. Special consideration is given to qualities shown by outstanding case work and the ability to train other counselors and supervise and evaluate their work to the end that the highest quality and quantity of rehabilitation services are obtained.

State medical consultant and district medical consultant. Graduation from a school of medicine approved by the Council on Medical Education and Hospitals of the American Medical Association, licensed to practice medicine and surgery in the state, at least three years of resident or graduate training or experience in a medical field appropriate to physical restoration, and held in high regard by his fellow physicians, the state department of health and the Iowa Medical Society.

Assistant state director. In addition to the minimum personal and educational qualifications of the counselor, the assistant state director must possess a master's degree or not less than five years of formal training above high school graduation. He shall possess additional personal qualifications as follows:

35.45(4) Leadership ability. The ability to enlist, organize and use effectively the cooperative efforts of others including co-workers, agencies, groups and individuals and to retain their loyalty.

35.45(5) Planning ability. The ability to anticipate, analyze and lay plans for developing the state-wide service to rehabilitate the handicapped.

35.45(6) Administrative and supervisory ability. The ability to develop organization

and manage personnel efficiently; the ability to train subordinates in their duties, to analyze and evaluate their work, to effectuate plans, and to devise and apply remedial measures when necessary.

These qualities must have been demonstrated by at least five years of technical experience in civilian vocational rehabilitation employment, including two years in an administrative or supervisory capacity. A person who has qualified for and successfully held the position of district supervisor for three or more years is considered to have met the educational and experience requirements for this position.

State director. Same as for assistant state director and in addition must possess the ability to manage funds, maintain financial and statistical records, account for state property, conduct administrative details according to established policy and promote the general rehabilitation program.

Chief fiscal officer. Because of the responsibilities entailed in this position, high personal as well as educational and experience qualifications are required. The chief fiscal officer must be at least twenty-one years of age and qualified to serve as a notary public; must be of good moral character and must have demonstrated high standards of business integrity throughout his business or professional life; must have completed high school training with additional training at the university or business college level in mathematics or accounting and must have excelled in such activity and in addition must have had at least four years of successful business or office experience, at least two years of which must have been in the handling of financial accounts. Preference is given to persons who are four-year college graduates and qualify as certified public accountants or to those whose experience has been closely related to the rehabilitation division in auditing or managing financial accounts.

Clerical staff assistant. This clerical position requires the ability to co-ordinate office activities, manage inventories, case files, and record systems. The individual must be capable of being a personal secretary or administrative aid and to take special assignments in supervising clerical personnel or in performing the more responsible duties in the various departments. The personal qualifications for this position are: (a) Strong personality; (b) initiative; (c) emotional stability; (d) good judgment; and (e) interest in the total development of the program. In addition to possessing the educational and experience qualifications of a secretary, the clerical staff assistant must have demonstrated the required abilities by actual employment of not less than one year.

Secretary. Minimum educational qualifications consist of graduation from a four-year high school with additional business training necessary to meet above average requirement in both speed and accuracy in the fields of typ-

ing, shorthand, business English, and related subjects. In addition a secretary must have demonstrated proficiency by at least one year of successful employment in secretarial or stenographic work. Personal characteristics required are: (a) Initiative; (b) industry; (c) neatness; (d) accuracy; (e) pleasing personality; (f) good judgment and (g) good health.

Stenographer. Minimum educational qualifications consist of graduation from a four-year high school with additional business training necessary to meet at least average requirements in both speed and accuracy in the fields of typing, shorthand, business English and related subjects. In addition a stenographer must have demonstrated proficiency by at least six months of successful employment in secretarial or stenographic work. Personal characteristics required are: (a) Initiative; (b) industry; (c) neatness; (d) accuracy; (e) pleasing personality; (f) good judgment and (g) good health.

Statistical clerk. The minimum educational, experience and personal qualifications for this position are those set forth for the position of stenographer and in addition the individual must possess sufficient ability in handling mathematical and statistical problems to handle case accounting procedures and prepare analyses of statistical data.

Bookkeeper. The minimum educational, experience and personal qualifications for this position are those set forth for the position of stenographer and in addition the individual must have specialized in bookkeeping or accounting procedures and have demonstrated proficiency in handling routine financial accounts.

Junior stenographer. Minimum educational qualifications consist of graduation from a four-year high school with additional business training necessary to meet at least average requirements in both speed and accuracy in the fields of typing, shorthand, business English and related subjects. Personal characteristics required are: (a) Initiative; (b) industry; (c) neatness; (d) accuracy; (e) pleasing personality; (f) good judgment and (g) good health.

Typist. Minimum educational qualifications consist of graduation from a four-year high school with additional training whenever necessary to meet average requirements in both typing speed and accuracy. In addition the personal qualifications of a stenographer are required.

35.46(259) Vacations and leaves for illness and military service. Insofar as is consistent with state personnel regulations currently in effect the division will allow all employees an annual vacation with pay for one week after the first year of employment and two weeks after two years or more of employment. An employee is not entitled to a portion of his

vacation as the vacation is only due when fully earned but the director may at his discretion adjust vacation periods to permit them to fall during the usual vacation months. Short leaves of absence due to personal illness or serious illness or death in the employee's immediate family will be granted by the director upon request as conditions seem to warrant. Permanent employees on the professional or clerical staff may be granted a leave of absence with pay of not to exceed thirty days per year when necessary by reason of sickness or injury. The question of need is determined by the director and he may request substantiating medical information. Unused portions of such sick leave may be accumulated for three consecutive years.

Leaves for military service will be granted in accordance with state law.

DIVISION XIV MAXIMUM FEES

35.47(259) Training.

35.47(1) In no case is the amount paid a training facility in excess of the rate published and in the case of facilities not having published rates, the amount paid the facility does not exceed the amount paid to the facility by other public agencies for similar services.

35.47(2) When facilities are used which have no published rates or from which other public agencies do not purchase similar services, such as on-the-job training, tuition fees will be established by agreement after ascertaining the comprehensiveness of instruction, the adequacy of equipment, the personal and technical qualifications of instructors and other factors which contribute to the success of such programs. In establishing tuition fees consideration will be given to the productive value of the trainee's services to the employer, the amount of wages which the employer will be required to pay the trainee, the amount and type of supervision required of the employer and the length of the training program. Fees may be graduated downward as training progresses but in no case will the division pay an amount in excess of twenty dollars per week tuition for on-the-job training for two dollars and a half per clock hour for special tutorial instruction. Travel costs of tutors, when required, may be reimbursed in accordance with applicable state regulations.

35.47(3) The division will maintain such information as is necessary to justify the rates of payment made to training facilities.

35.48(259) Physical restoration services (other than hospitalization and prosthetic devices) and medical examinations.

35.48(1) The division has established fee schedules which indicate the maximum payments that may be made for physical restoration services and medical examinations. These maximum fees do not exceed those paid by

other public agencies operating in the state for such services or examinations.

35.48(2) When medical personnel or facilities located in another state are utilized, the rates of payment of the vocational rehabilitation division of the other state will be observed.

35.48(3) The division maintains such information as is necessary to justify the rates of payment made for physical restoration services and medical examinations.

35.49(259) Hospitalization.

35.49(1) Payments made for days of hospital care are made at inclusive per diem rates as defined in the regulations, and shall not exceed the average per diem cost for hospitalization as computed by the reimbursable cost method promulgated by the federal director, except that services at the Iowa State University Hospitals may be purchased at rates not in excess of the average of per diem rates established by all hospitals being used by the Iowa division.

35.49(2) The reasonableness of the cost of such items as blood donors, X-rays, anesthesia, appliances, casts, drugs and supplies, not purchased or provided by the hospital, for which the hospital has made no expenditures during the accounting period and which, therefore, are not covered by the inclusive rates, will be determined by the charges made for such services to the general public and will not exceed the amount paid by other public agencies for other services.

35.50(259) Prosthetic devices.

35.50(1) In no case is the amount paid for prosthetic devices in excess of the published rates for such devices, or, if there are no published rates, the amount paid for such devices does not exceed the amount generally paid for such devices by other public agencies operating in the state.

35.50(2) The division maintains information necessary to justify the rates of payment for prosthetic devices.

35.51(259) Travel.

35.51(1) All travel expenditures will be made in accordance with applicable state regulation.

35.51(2) The authority for all official travel of a duly constituted official of the division is issued by the director. He delegates authority to control the official travel of all members of the operating staff to the assistant director. Travel within a district is under the immediate supervision of the district supervisor and authority for district personnel to travel outside of their district is issued by the assistant director on specific request. All out-of-state travel must be recommended by the director and approved by the executive officer of the board and by the executive council of the state.

35.51(3) Official travel will not be allowed for expenses within the official station of an officer or employee except for necessary transportation expenses other than between home and office or place of duty.

[Filed July 1, 1952]

PUBLIC SAFETY DEPARTMENT

TITLE I

ADMINISTRATIVE DIVISION

CHAPTER 1

MOTOR VEHICLE LIGHTING DEVICES AND OTHER SAFETY EQUIPMENT

1.1(321)T.I Submittal procedure and requirements. The following procedures shall be followed when any equipment or device is submitted for approval:

1.1(1) Original equipment.

a. The vehicle manufacturer, or his supplier, shall submit to the commissioner of public safety a written request for approval of the lamp or device.

b. With the request the following shall be supplied:

(1) Identification of the make and model, or models, of vehicle for which the lamp or device is designed.

(2) A test report, from a recognized testing laboratory approved by the commissioner, showing compliance with the appropriate specifications and regulations as specified herein.

In cases where there may be delays in obtaining completed test reports from approved

laboratories, the manufacturer may submit with his request for approval a test report from his own laboratory indicating compliance with appropriate specifications. In such cases, a temporary certificate of conditional approval will be issued subject to cancellation without further hearing if the applicant fails to supply the required test report from an approved laboratory within ninety days after issuance of the certificate.

1.1(2) "After-market" equipment.

a. The manufacturer or his representative shall submit to the commissioner of public safety a written request for approval of the lamp or device.

b. The following items shall be supplied with the request for approval:

(1) A test report, from a recognized testing laboratory approved by the commissioner, showing compliance with the appropriate specifications and regulations specified herein.

(2) A set of installation or mounting instructions when applicable.

(3) A set of aiming instructions when applicable.

1.1(3) Safety glass. Requests for approval of safety glass shall be submitted in accordance with the requirements set forth above for original equipment items, except that it will not be necessary to supply information as to make and model of vehicle on which the glass is to be installed.

1.1(4) Listing of approved motor vehicle equipment. Items of equipment will be dropped from the "List of Approved Motor Vehicle Equipment" five years from January 1 following the date of approval, unless the manufacturer requests further listing, in which case he shall submit a test report or other proof that the item as then being manufactured meets the then current specifications.

1.1(5) Specifications for lamps and devices.

a. General.

(1) All lamps and lighting devices, and parts thereof, shall comply with the "SAE Standards" and "SAE Recommended Practices" appearing in the then current edition of the "SAE Handbook", published by the Society of Automotive Engineers, Inc., 29 West 39th Street, New York 18, New York, which are applicable to the lamp or device being submitted for approval, provided such standards are consistent with Iowa statutory requirements.

(2) The interstate commerce commission standards for reflector flares, towing devices, and saddle mounts.

(3) The current American Standards Association specifications for safety glass.

(4) Additional specifications may be adopted by the department whenever the before mentioned specifications are deemed inadequate or inapplicable to a particular device.

b. Model designation. Each individual device or equipment shall have a model designation. Devices or equipment which are substantially different in optical or mechanical construction, even though such devices or equipment may serve the same functions, shall bear distinctive model designations.

c. Identification.

(1) The device or equipment shall be marked with the trade-mark or name and the model designation in letters and numerals at least $\frac{1}{8}$ -inch in height. The manufacturer's initials will be acceptable as the name. The approval markings shall be readily visible and legible from the outside of the device or equipment when it is properly mounted on the vehicle; except that required markings on built-in headlamp and auxiliary lamp subbodies using sealed beam units, and on built-in turn signal operating units, may be on the inside. Markings other than those which are required may be of any size or in any location. The required markings shall be permanently die-stamped or molded in both the body and lens except that the body markings may be marked by a suitable decalcomania protected from abrasion and weathering if it is not feasible to die-stamp or mold them on the body. In such cases the lens markings shall still be molded in the lens and shall be visible from

the outside. Safety glass shall be marked according to current specifications of the American Standards Association.

(2) No raised or indented markings or identification shall be so placed as to interfere with the proper seating of surfaces where a tight seal is desirable.

1.1(6) Testing samples. The commissioner may require samples or further testing at the manufacturers expense of any device for which approval has been requested.

[Filed June 30, 1961]

CHAPTER 2

EMERGENCY EQUIPMENT ON PRIVATELY OWNED MOTOR VEHICLES AND THE ISSUANCE OF PERMITS FOR THE USE THEREOF

2.1(321) T.I. Definitions.

2.1(1) Authorized emergency vehicle defined by section 321.1(26) of the Code.

2.1(2) Ambulance. A vehicle which is designed and used primarily for the conveyance of injured or ill persons which is acceptable as such by the commissioner of the department of public safety.

2.1(3) Rescue vehicle. A vehicle used to extricate or to assist persons in dangerous situations involving their bodily welfare.

2.1(4) Disaster vehicle. Same as rescue vehicle.

2.1(5) Emergency equipment. Warning lights, sirens, and any and all types of equipment or devices which can be mounted on or carried in a motor vehicle which is designed for or may be used to warn persons or other motorists of the approach of or the presence of the motor vehicle which is so equipped.

2.2(321) T.I. Flashing lights. The use of flashing lights on motor vehicles is prohibited, except as a means of indicating a right or left turn or intention of stopping or on the following enumerated vehicles:

2.2(1) Authorized emergency vehicles.

2.2(2) Rural mail carriers may use a flashing white or amber, or any shade of color between white or amber, dome lights on their vehicles when outside the corporate limits of any city or town when stopping on or near the highway while in the process of delivering mail. No permit is required for this type of light to be used by a rural mail carrier.

2.2(3) Volunteer firemen may display and use a flashing blue light on their privately owned vehicles. However, a permit must be obtained from the commissioner of public safety before such display or use is authorized.

2.3(321) T.I. Red lights on the front of motor vehicles. No person shall operate or move any motor vehicle or equipment upon any highway which has any lamp or device thereon which displays or reflects a red light visible from directly in front of such vehicle. This pro-

vision shall not apply to authorized emergency vehicles.

2.4(321)T.I Government-owned motor vehicles. All motor vehicles which are owned or operated by the federal, state, county, or municipal governments may be classified as authorized emergency vehicles by such governmental agency and said agencies do not need to procure a permit from this department to equip and use emergency equipment on such vehicles.

2.5(321)T.I Privately owned motor vehicles. All motor vehicles which are privately owned must be issued a permit from the commissioner of public safety before such privately owned vehicles may be equipped with and use emergency equipment.

2.5(1) The commissioner is authorized to designate a privately owned ambulance, rescue or disaster vehicle as an authorized emergency vehicle and to issue a certificate of designation therefor, upon written request being made on forms provided by the department and a showing of necessity for such designation.

2.5(2) The commissioner may revoke such certificate of designation upon a showing of abuse thereof.

2.6(321)T.I Authorization to sheriffs and their deputies. Sheriffs and their authorized, full time, compensated deputies may be given permits to operate their privately owned vehicles as rescue or disaster vehicles.

2.7(321)T.I Authorization to chiefs of police and town marshals. Chiefs of police, town marshals or chiefs of organized, full time, compensated fire departments may obtain a permit for the use of emergency equipment on their privately owned vehicles when the department of public safety determines that the public welfare calls for the use of such equipment and when the permit is requested by the city council and signed by the mayor of the city or town in which the applicant resides.

2.8(321)T.I Applications which will be considered. Only those vehicles which are specifically mentioned herein, or by law, or those vehicles which meet the requirements as set out herein will be considered as subjects for which a permit will be issued.

2.9(321)T.I Types of emergency equipment which is subject to approval. When application is made for a permit to operate any emergency equipment consisting of lighting devices, the applicant will not receive consideration for a permit unless the light to be used is on the commissioner's list of approved lighting devices.

2.10(321)T.I Application form. An application for designation of a privately owned motor vehicle as an authorized emergency vehicle shall be made on the following form. These forms may be obtained from the commissioner's office.

APPROVED BY: _____ ON: _____
Application for Designation of Vehicle as "Authorized Emergency Vehicle"
(Complete in Duplicate)

TO THE COMMISSIONER OF PUBLIC SAFETY OF THE STATE OF IOWA:

Application is hereby made for designation of the vehicle, below described, as an "authorized emergency vehicle":

Your County _____

(1) Your Name _____ Your Age _____
Regular Occupation _____ Address of Owner _____

(2) Description of vehicle: Make _____ Year _____ Type _____
Registration No. _____ Gross Weight _____ Serial No. _____

(3) The undersigned has insurance coverages with _____
Insurance Co. of _____ and as covered by _____ liability coverage. Check if no coverage ().

(4) Exact Factory Description, (and specify whether or not Flasher type light), of the emergency equipment to be used _____

Siren type description _____

(5) State if vehicle is to be used as an ambulance, rescue or disaster vehicle _____

Specify in detail the full, and only uses of the vehicle _____

(6) State the full names, ages, and addresses, plus occupations of all persons who will operate this vehicle at any time. _____

I CERTIFY THAT THE INFORMATION ABOVE PROVIDED IS A FULL DISCLOSURE, AND IS TRUE AND CORRECT. AND I FULLY UNDERSTAND THAT ANY NONCOMPLIANCE WITH THE LAW, OR MISREPRESENTATION IN THIS APPLICATION MAY RESULT IN REVOCATION OF THIS PERMIT AND PENALTIES AS THE LAW PROVIDES.

STATE OF IOWA _____ } SS _____
COUNTY OF _____ } Owner of Vehicle
Subscribed and sworn to before me, by owner of vehicle on this _____ day of _____, 19____.

Notary Public

Said application must be submitted in duplicate, must be notarized, filled out completely, and must be accompanied by two photographs of the vehicle. The photographs should be no less than three inches by three inches and show a side and a front view of the vehicle.

2.11(321)T.I Mayor's certificate of necessity.

The following "Certificate" must be completed in duplicate and accompany the application for all permits which are requested for the use of emergency equipment on the privately owned motor vehicles of chiefs of police or Iowa marshals.

CERTIFICATE

I, _____, being a Mayor of _____, Iowa, do hereby certify that the City Council, of which I am presently Mayor, has by resolution, duly executed, requested the State Department of Public Safety to issue a vehicular emergency permit to _____ who is a duly authorized, full time, fully compensated peace officer, engaged in law enforcement work in our city or town.

It is understood and agreed that any permit the Department of Public Safety may issue on the basis of the authorization of this certificate, is granted subject to the provisions of this certificate, and subject to the conditions, as represented, continuing. Any change in the conditions or provisions as represented by this certificate, or by the permit application form, as executed, will terminate, by force of law, the permissions granted by the permit.

Mayor of _____, Iowa

[Filed November 13, 1962]

TITLE II
DEALERS LICENSE DIVISION

CHAPTER 1

PLACE OF BUSINESS REQUIREMENTS

1.1(322)T.II "Designated location" means a building actually occupied, easily accessible to the public, and wherein the public may contact the owner or operator at all reasonable times.

1.2(322)T.II "Adequate facilities shall be maintained for displaying cars" means a suitable space in a building reserved for display purposes where automobiles may be viewed by prospective buyers under conditions favorable to health and safety, meaning clean air, dry and safe flooring, well-lighted, and free from obstacles, equipment or machinery, etc.

1.3(322)T.II "Reconditioning and repairing" means a suitable repair shop separate from display room, with space to repair and recondition one or more automobiles at the same time, equipped with ample tools for making these repairs.

1.4(322)T.II "New and used dealer plates." Whenever an Iowa dealer operates a motor vehicle that is not currently registered in Iowa on the public highway under the authority of section 321.57 of the Code, such motor vehicle shall at all times display dealer plates provided by the department which identify the motor vehicle as a "new car" or a "used car" as the case may be. "Used car" dealer plates may only be displayed on a used motor vehicle as defined in section 322.2(6) of the Code by dealers licensed by the department to sell used motor vehicles. "New car" dealer plates may only be displayed on new motor vehicles by dealers licensed by the department to sell such make of new motor vehicles.

1.5(322)T.II "Identification sticker." Whenever an Iowa dealer obtains title to a foreign registered motor vehicle under the authority of section 321.48(2) of the Code, and holds such motor vehicle for resale without obtaining a current Iowa registration; there shall be displayed upon such motor vehicle at all times an official identification sticker furnished by the department certifying the identity of the motor vehicle, the state of previous registration, and that it is a used car as defined by section 322.2(6) of the Code. Such sticker shall be obtained from the county treasurer by the dealer at the same time the Iowa title is obtained, and the dealer shall immediately fasten the sticker securely to the inside lower right corner of the windshield of the motor vehicle. The sticker shall remain displayed thereon until said motor vehicle is sold at retail and a regular Iowa registration has been applied for as provided by law.

1.6(322)T.II Salesmen.

1.6(1) No motor vehicle dealer shall act as a salesman for any other motor vehicle dealer.

1.6(2) No unlicensed person employed as a salesman of motor vehicles by a licensed

new or used motor vehicle dealer shall act as a salesman, or represent or imply, either directly or indirectly, that he is a salesman for any other new or used motor vehicle dealer.

(This rule is intended to implement section 322.3, subsection 3, of the Code.)
[Filed December 19, 1956; amended November 26, 1963]

TITLE III
FIRE PROTECTION DIVISION

CHAPTER 1

CLASS "A" ESCAPES

1.1(103)T.III Metal spiral and tubular slide type and enclosed fireproof stairways. Spiral and tubular slide fire escapes shall be considered as Class "A" escapes and will be permitted when general plans and specifications for such escapes have been filed with the state fire marshal by the manufacturer and approved by the fire marshal. Plans for each installation shall be submitted for approval before escape is fabricated.

Enclosed fireproof stairs may be considered as Class "A" escapes when approved as such by the state fire marshal.

[Filed December 19, 1956]

CHAPTER 2

CLASS "B" ESCAPES

2.1(103)T.III Iron stairway fire escapes—balconies.

2.1(1) Frames. All frames shall be constructed according to specifications noted in 3.1(103)T.III for balconies for ladder escapes with exception of opening and depth, and of sufficient length to permit of an easy (or about forty-five degrees) pitch to the stairs. All balconies shall be not less than twenty-six inches deep and twelve inches longer than width of exit, said twelve inches to extend in direction of downward flight of stairway, and shall not be less than fifty-four inches deep at turns, and the full width of stairway must be maintained at all turns in stairways.

2.1(2) Posts. All railings and posts for stairway balconies to be constructed the same as for ladder balconies, 3.1(103)T.III, except that posts at open end of balconies shall be braced and intermediate posts shall be braced at least every six feet to the top member of brackets and which shall extend at least ten inches beyond balcony platform, to provide support for a 1½ x 1½ x 1½-inch angle, or a ½-inch round or square brace to posts fastened about fifteen inches above balcony frame.

2.1(3) Rails. Rails of balconies for Class "B" escapes shall be constructed as provided for ladder or Class "C" escapes, 3.1(103)T.III. Provided, however, that all stairway escapes hereafter erected on school buildings shall be constructed with filling-in bars or wire mesh in which case a two-rail system may be used with bottom rail not more than eight inches above the floor of balcony and shall be of 1½ x ¾-

inch bar, or of $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{4}$ -inch angle iron, and a top rail of $1\frac{3}{4}$ x $\frac{1}{2}$ -inch bar, or $1\frac{3}{4}$ x $1\frac{3}{4}$ x $\frac{1}{4}$ -inch angle iron and not less than three feet above balcony floor. Rails at dead ends to be leaded or cemented into the wall not less than four inches.

2.1(4) Filling-in bars or wire mesh. The standard or filling-in bars shall be not less than $\frac{5}{8}$ -inch round or square iron, well riveted or welded to the top and bottom rails of all balconies and stairways, and shall be placed not more than six inches apart, or a wire mesh filling may be used, the same to be constructed of not smaller than ten-gauge wire with not larger than $1\frac{1}{2}$ -inch mesh, securely fastened to all posts and railings of balconies and stairways.

2.1(5) Brackets—balconies. Bracket construction of angle iron shall be not less than $1\frac{3}{4}$ x $1\frac{3}{4}$ x $\frac{1}{4}$ -inch angle iron, firmly secured at all points of intersection of main members to $\frac{3}{4}$ -inch gusset plates, by at least two $\frac{1}{2}$ -inch rivets. Where width of balcony exceeds forty-two inches, interior braces of $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{4}$ -inch angle iron, or its equivalent, shall be securely riveted to main members of bracket. The anchorage of all angle iron brackets shall consist of one-inch round iron, securely riveted with not less than three $\frac{1}{2}$ -inch rivets to the top member of bracket and passing through the wall and secured both above and below as specified for brackets for ladder balconies. Angle of brackets shall be same as for ladder escapes. [See 3.2(4)T.III.]

2.2(103)T.III Stairways.

2.2(1) Stairway clearance. No stairway shall be erected closer than four inches from any portion of walls of building.

2.2(2) Stringers. Stringers for stairs to be not less than $2\frac{3}{4}$ x $5/16$ -inch iron, two on each side of stair with steps securely bolted to same and so spaced that no part of tread will protrude beyond stringers. Stairway stringers to be securely fastened to the balconies with $\frac{1}{2}$ -inch bolts.

2.2(3) Steps. Steps to be made of at least five $\frac{1}{2}$ -inch square irons with corners upward, firmly riveted or welded to steel plates at each end. Said plates to be $2\frac{1}{4}$ -inches by $5/16$ -inch mild steel firmly bolted with $\frac{1}{2}$ -inch bolts to stringers and punched $1\frac{3}{4}$ inches center to center, forming a tread not less than seven inches wide and twenty-two inches long.

2.2(4) Rise. Steps to be spaced so as to make about eight-inch rise. On counterbalance stairways there shall be provided between the four upper treads a filling-in riser, of the same construction as stair treads, attached to and parallel with lower members of stringers.

2.2(5) Posts. Angle iron posts $1\frac{3}{4}$ x $1\frac{3}{4}$ x $\frac{1}{4}$ -inch shall be spaced not to exceed four feet apart on all stairways, and shall be rigidly fastened to the stringers of stairway.

2.2(6) Rail. Railings for stairways to be the same as balcony railings, [see 3.1(4)T.III], except that no brace posts shall be required and all double width stairways shall have railings on both sides of stairway. All single width stairways, where there is more than four-inch space between stairways and walls, recesses or openings in walls, shall be provided with railings on the inside, the same as specified for outside of stairways.

2.2(7) Double width stairs. Where double width stairways are constructed they must be designed to carry the double load required, the treads to be composed of at least five $\frac{3}{4}$ -inch square irons, corners upward, and firmly riveted or welded to steel plates at each end, provided that where a center stringer is used, the treads shall conform to specifications for single stairways. Class "B" fire escapes for hospitals shall be double width and reach ground direct.

2.2(8) Stair bracket. Where any flight of stairway exceeds sixteen feet in length, a bracket complying with bracket specifications to provide support and stiffening shall be placed as near midway of the flight as possible.

2.2(9) Intermediate platform. Whenever the length of any stairway (Class "B") fire escape shall exceed twenty feet between platforms, an intermediate platform not less than three feet in length and the full width of escape shall be provided.

2.2(10) Terminal balcony. In all cases where stairway (Class "B") fire escapes terminate within six and one-half feet from the ground, they shall be provided with a balcony at bottom the full width of stairway and not less than thirty inches in length.

2.2(11) Exits. Fire escapes erected on theaters, opera houses and school buildings, public halls and assembly rooms shall be reached through doorways provided at floor level on each floor and shall reach ground either direct or by counterweight or counterbalance stair. Provided, however, that buildings used strictly for high school purposes may be exempted from this rule because of construction or other exceptionally favorable conditions. Every (Class "B") fire escape that reaches the ground direct shall be firmly anchored to a cement or stone block footing. Exits to Class "A" and Class "B" fire escapes shall be doors at floor level and open outward.

All hospitals, sanatoriums, infirmaries, homes for the aged, county homes, and other similar institutions shall be equipped with an approved type of spiral or tubular fire escape.

2.2(12) Counterbalanced stair. Counterweight or counterbalanced stairways shall be constructed from lower balcony to the ground, and must be railed on both sides, and so braced and strengthened as to withstand the stresses produced when loaded stairway strikes the ground. The path described by the operation must be free from any obstruction which

might prevent the successful operation of same.

2.3(103)T.III Counterweight construction.

2.3(1) Brackets. Top bracket to be standard construction for brackets. Lower bracket construction may be two standard brackets, or their equivalent, with not less than four-inch channel iron crossplate on top. Where special lower brackets are provided they shall be attached to wall by two expansion bolts not less than $\frac{5}{8}$ -inch in diameter.

2.3(2) Guides for counterweight. Guides shall be not less than two $1\frac{1}{4} \times 1\frac{1}{4} \times \frac{1}{4}$ -inch angle iron or two iron rods not less than $\frac{3}{4}$ -inch diameter arranged in such manner that counterweight is securely retained. Guides to be securely attached to upper and lower brackets, with two nuts on bolts.

2.3(3) Sheaves. Not less than two sheaves of self-lubricating type shall be provided. For $\frac{5}{8}$ -inch cable the diameter of sheaves shall not be less than ten inches. For one-half-inch cable the diameter of sheaves shall be not less than eight inches.

2.3(4) Housing. Housing for sheaves shall be constructed of sheet iron not less than No. 10 gauge and shall enclose both sheaves to their full depth.

2.3(5) Cables. Cables shall be not less than $\frac{1}{2}$ -inch diameter flexible hoisting cable.

2.3(6) Counterweights. Counterweights shall be so constructed that they will operate freely in guides under any weather conditions.

2.3(7) Bails. Bails shall be constructed of not less than $\frac{3}{4}$ -inch diameter iron rod attached to outside of stair stringers and provided with crossbar equal to width of stair at top of bail, with a minimum head clearance of not less than seven feet at all times.

CHAPTER 3

CLASS "C" ESCAPES

3.1(103)T.III Iron ladder fire escapes—balconies.

3.1(1) Material. All balconies for ladder fire escapes hereafter erected must be of wrought iron or mild steel, not less than twenty-eight inches deep and six feet long.

3.1(2) Frame. The balcony frame shall be made continuous of not less than $1\frac{1}{4} \times 1\frac{1}{4} \times \frac{1}{4}$ -inch angle iron securely riveted or welded together, with crossbars every two feet, said bars to be punched $\frac{1}{2}$ -inch square every $1\frac{1}{4}$ inches center to center, and $\frac{1}{2}$ -inch square iron with corners upward forced through the same, leaving a manhole of not less than 24×24 inches located to clear side of exit to balcony by at least six inches. The crossbars to be securely riveted, welded, or bolted to the angle iron frame. Said crossbars must be not less than $1\frac{1}{4} \times \frac{3}{8}$ -inch iron. Balconies over thirty inches wide must have at least one $1\frac{1}{4} \times \frac{1}{4}$ -inch T-iron lengthwise through the balcony.

3.1(3) Posts. Said balconies to have a $1\frac{1}{4} \times 1\frac{1}{4} \times \frac{1}{4}$ -inch angle iron post every three feet, bolted to the balcony.

3.1(4) Rails. Balconies to be equipped with three rails of angle iron, or pipe. Angle iron to be $1\frac{1}{4} \times 1\frac{1}{4} \times \frac{1}{4}$ -inch. Pipe rail to be $\frac{3}{4}$ -inch inside diameter pipe. Top rail to be not less than three feet, and bottom rail not more than eight inches above balcony with intermediate rail spaced equally between the two. All railing to be continuous, except the space occupied by ladder, where railings shall be securely bolted to sides of ladder.

Rails shall enter the wall at each end at least four inches and top rail be securely braced to balcony with $1\frac{1}{2} \times \frac{1}{4}$ -inch bar.

In lieu of the above a rail system with filling-in bars or wire mesh as described under stairway escapes may be used. [See 2.1(4)-T.III.]

3.2(103)T.III Brackets for balconies of ladder escapes.

3.2(1) Material. There shall be not less than three one-inch square or one-inch diameter round mild steel brackets to every six-foot balcony, brackets to be spaced not to exceed three feet apart. Brackets as specified for stairway escapes may be used. [See 2.2(8)-T.III.]

3.2(3) Fastenings. Top bar of said bracket must pass through the wall of the building and be bolted on the inside with a nut and $4 \times 4 \times \frac{3}{8}$ -inch plate iron washer back of nut. Where walls are of frame construction, or veneered, said brackets must be secured by a $4 \times \frac{3}{8}$ -inch plate, or two, $2 \times \frac{5}{16}$ -inch iron bars securely spiked to each studding on inside of wall and running the full length of balcony.

3.2(4) Angle. The angle of brackets to be about 45° and not less than 30° without special permission from the state fire marshal, and to pass into the wall at least 4 inches at bottom.

3.3(103)T.III Ladders.

3.3(1) Material. Rungs of ladders to be $\frac{1}{2}$ -inch square iron, with the corners upward. Every rung to be riveted and to be 14-inch centers. All ladders must be 18 inches between side guards, which shall be not less than $2 \times 5/16$ -inch iron.

3.3(2) Location. All such ladders, when erected on buildings, to be placed to the side of the windows, opposite the wall or pier, securely fastened with hook bolts, on the inside of each side bar, to the balconies and not less than 24 inches away from the wall, and to start $6\frac{1}{2}$ feet from the ground. In lieu of starting ladder within $6\frac{1}{2}$ feet from the ground a drop ladder may be hung at second story in such a manner that it can be easily lowered in case of necessity, same to be secured by guides to insure safe upright position when ladder is lowered, and to be secured at second story in such manner as to be easily dropped without

lifting. The vertical distance between anchorage for all ladders shall not exceed 12 feet.

3.4(103)T.III General requirements.

3.4(1) Use of other materials. Materials of the following type and meeting the following specifications may be used in the construction of all classes of fire escapes in addition to or in substitution of the materials heretofore authorized for such use:

Steps, double width stairs, balconies, landing platforms and walkways may be constructed of serrated or antiskid open type steel grating. The material from which the sections are made shall not be less than twelve-gauge thickness.

Openings in the surface shall not be more than $\frac{7}{8}$ inches wide and $1\frac{1}{2}$ inches long or less than $\frac{1}{2}$ inch wide and $1\frac{1}{2}$ inches long. All sections shall be capable of supporting a uniform superimposed load of one hundred pounds per square foot without causing a deflection in excess of $1/240$ of the span.

3.4(2) Rivets and bolts. All rivets and bolts used in general construction to be not less than $\frac{1}{2}$ -inch diameter unless otherwise specified and all rivets to be driven hot, with heads concentric, with all holes well filled and rivet heads well rounded where clearance will permit.

3.4(3) Material. The use of second-hand material will not be permitted, and will be condemned if found in fire escape construction.

3.4(4) Fittings. No cast iron fittings shall be used.

3.4(5) Roof ladder. All fire escapes to have a ladder of standard construction extending from top story balcony over and three feet above the roof, with gooseneck construction securely fastened to the roof or wall. The bottom of said ladder to be secured to balcony, and in no case shall said ladder be constructed to lean outward from the building. When more than one fire escape is erected on a building, the number of roof-ladder extensions may be limited to a reasonable number necessary for fire-fighting purposes.

3.4(6) Holes in masonry. All holes in masonry must be filled with best Portland cement mortar.

3.4(7) Painting. All work must be painted with not less than two coats of paint, one of iron oxide and linseed oil in shop, and one of graphite and linseed oil after erection. The field coat to be different color than shop coat.

3.4(8) Factor of safety. Balconies and stairways shall be capable of sustaining a live load of one hundred pounds to the square foot. Fire escapes shall have a factor of safety of not less than four.

3.4(9) Approval of plans. Duplicate sets of blueprints of plans and specifications for fire escapes should be submitted to the state fire marshal for approval before beginning fabrication in the shop. If plans are acceptable, they will be approved, one set being returned

to the sender and the other retained for the files of the state fire marshal.

3.4(10) Maintenance and painting. Steel members of all classes of outside fire escapes shall be painted before and after erection.

All outside fire escapes shall be inspected at least once each year and shall be scraped and painted as often as necessary to maintain them in proper condition at all times.

All outside fire escapes shall be kept clear of all obstructions.

All outside fire escapes shall be promptly cleaned after snow or ice has accumulated thereon.

No obstructions such as telephone or lighting wires shall be permitted on or near outside fire escapes. Electric light or power wires shall not be directly over or within three feet of outside fire escapes or balconies, unless such wires are enclosed in rigid conduit.

[Filed November 25, 1955]

CHAPTER 4

EXITS, RAMPS AND ESCAPES

4.1(103)T.III Doors.

4.1(1) Doors to open outward. The entrance and exit doors of all hotels, churches, lodge halls, courthouses, assembly halls, theaters, opera houses, colleges, public schoolhouses, and other structures where the hazard is deemed sufficient by the inspector, and the entrance doors to all class and assembly rooms in public school buildings, shall open outward and shall not be fastened against exit or so the same can not be easily opened from within. (Section 103.8 of the Code.)

Entrance and exit doors for hospitals or retail stores shall open outward when such arrangement appears warranted by the inspector, subject, however, to the approval of the state fire marshal.

4.1(2) Emergency exits. Emergency exit doors for theaters, assembly halls, auditoriums, and dance halls shall be provided as follows: There shall be at least twenty-two inches emergency exit door width for each one hundred persons, or major fraction in excess thereof, and no emergency door shall be less than forty-four inches in width except doors to fire escapes. At least one emergency door shall be provided. Emergency exit doors shall have lighted signs over door at night or when room is darkened. All emergency exit doors shall open outward and shall not be fastened against exit, except by antipanic bar locks, while the building is open to the public.

4.1(3) Foyers. Foyers, corridors, passageways and stairways for buildings noted in preceding paragraph shall not be of less width than the combined width of aisles leading into same and in no case shall any aisle or passageway be less than thirty-six inches wide or any foyer or stairway less than forty-four inches wide in the clear. Stairs and passageways shall be properly lighted. Auditoriums, assembly

halls and dance halls on the second floor of two-story buildings not provided with at least two adequate stairs shall be equipped with fire escapes according to the ratio fixed by law.

4.1(4) Ramps. Ramps shall be provided in aisles and passageways leading to exits instead of steps whenever the rise to exit will permit a ramp to be used, and shall be surfaced with suitable nonslip material whenever surface is such as to involve danger of slipping. The rise in a ramp shall not exceed one foot in each seven feet of lineal length except by special permission of the state fire marshal.

4.1(5) Seats. Seats in auditoriums, theaters and assembly halls, balconies and galleries shall be securely fastened to the floor, except that railed-in enclosures, boxes or loges with level floors and having not more than fourteen seats need not be fastened.

Seats shall be arranged in such manner that no more than fourteen seats shall be placed between aisles or more than seven seats between an aisle and the wall when there is no outside aisle at the wall. Seats shall be arranged so that there will not be less than thirty inches from back to back of the seats. Seats without dividing arms shall have their capacity determined by allowing twenty inches per person. No seats shall be placed in the aisles or persons allowed to stand in aisles or foyers. Persons waiting to enter the building shall not occupy more than one-half of lobby, thus leaving one-half of the lobby clear for exit.

[Filed September 14, 1964]

CHAPTER 5 LIQUEFIED PETROLEUM GASES

5.1(101)T.III The standards of "Storage and Handling of Liquefied Petroleum Gas", No. 58, 1969 edition of the National Fire Protection Association and "Installation of Gas Appliances, Gas Piping", No. 54, 1969 edition of the National Fire Protection Association together with their references to other specific pamphlets referred to and contained within the volumes of the National Fire Code, 1969-70 edition of the National Fire Protection Association published in 1969, shall be the rules governing liquefied petroleum gases in the state of Iowa.

5.2(101)T.III No person shall transfer any liquefied petroleum gas into a container, regardless of size, if the container has previously been used for the storage of any other product until the container has been thoroughly purged, inspected for contamination, provided with proper valves, and determined to be suitable for use as a container for liquefied petroleum gas as prescribed in the standards established under rule 5.1(101)T.III of this chapter. [Filed August 21, 1957; amended January 15, 1960; June 22, 1962; August 19, 1970]

CHAPTERS 6 TO 13
Reserved for future use

CHAPTER 14 FLAMMABLE LIQUIDS RULES

14.1(101)T.III Definitions.

14.1(1) "Approved" is defined as being acceptable to the state fire marshal. Any equipment, device or procedure which bears the stamp of approval of or meets applicable standards prescribed by an organization of national reputation such as the Interstate Commerce Commission, Underwriters' Laboratories, Inc., Factory Mutual Laboratories, American Society for Testing Materials, National Board of Fire Underwriters, National Fire Protection Association, American Society of Mechanical Engineers, American Petroleum Institute or American Standards Association, which undertakes to test and approve or provide standards for equipment, devices or procedures of the nature prescribed in these regulations shall be deemed acceptable to the state fire marshal.

14.1(2) "Barrel" shall mean a volume of forty-two U. S. gallons.

14.1(3) "Crude petroleum" shall mean hydrocarbon mixtures that have a flash point below 150° F. and which have not been processed in a refinery.

14.1(4) "Flammable liquid" shall mean any liquid having a flash point below 200° F. and having a vapor pressure not exceeding forty p.s.i.a. at 100° F.

Flammable liquids shall be divided into three classes as follows:

CLASS I shall include those having flash points at or below 20° F.

Typical examples are: Ether, gasoline, benzol, collodion, acetone, carbon disulphide (disulphide), methyl acetate.

CLASS II shall include those having flash points above 20° F. but at or below 70° F.

Typical examples are: Denatured alcohol, toluol, methyl alcohol.

CLASS III shall include those having flash points above 70° F.

Typical examples are: Kerosene, amyl alcohol, turpentine, mineral spirits, stoddard solvent, fuel oil.

The volatility of flammable liquids is increased when artificially heated to temperatures equal to or higher than their flash points. When so heated class II and III liquids shall be subject to the applicable requirements for class I or II liquids. High flash point liquids which otherwise would be outside of the scope of these regulations, may be subjected thereto when they are so heated.

14.1(5) "Flash point" shall mean the minimum temperature in degrees Fahrenheit at which a flammable liquid will give off flammable vapor as determined by appropriate test procedure and apparatus as specified below.

The flash point of flammable liquids having a flash point below 175° F. (79°C.) shall be determined in accordance with the Standard

Method of Test for Flash Point by Means of the Tag Closed Tester (A.S.T.M. D56-52).

The flash point of flammable liquids having a flash point of 175° F. or higher shall be determined in accordance with the Standard Method of Test for Flash Point by Means of the Pensky-Martens Closed Tester (A.S.T.M. D93-52).

14.1(6) "NFPA" means the National Fire Protection Association.

14.1(7) "Vapor pressure" shall mean the pressure, measured in pounds per square inch, absolute, exerted by a volatile liquid as determined by the "Standard Method of Test for Vapor Pressure of Petroleum Products (Reid Method)", (A.S.T.M. D323-55). This method is also the standard for the American Standards Association (A.S.A. Z11.44-1955).

14.1(8) "Container" shall mean any can, bucket, barrel, drum or portable tank, except stationary tanks, tank vehicles, and tank cars.

14.1(9) "Important building" shall mean any structure having a total of at least two hundred square feet of floor area; or any structure, regardless of floor area, which is designed or used for human habitation or occupancy.

14.2(101)T.III Modifications. Modifications of the requirements of these regulations may be obtained upon application therefor in writing to the state fire marshal in individual cases (1) where specifically provided for in these regulations, (2) where strict compliance is impracticable or would result in hardship to the applicant and the departure sought would not constitute a distinct hazard to life or adjoining property and (3) to the extent necessary to permit replacement of existing facilities that are in unserviceable or hazardous condition.

[Filed October 8, 1957; amended January 15, 1960]

CHAPTER 15

STORAGE, HANDLING AND USE OF FLAMMABLE LIQUIDS

15.1(101)T.III Application and scope.

15.1(1) *Application.* These regulations shall apply to all persons, firms, corporations, copartnerships, governmental agencies except federal, and voluntary associations storing, handling or using flammable liquids, and to the owner or lessee of any building, premises, or equipment in or on which flammable liquids are stored, handled, or used.

15.1(2) *Scope.* The regulations in chapter 15,T.III shall apply to flammable liquids as hereinbefore defined; except that they shall not apply to the transportation of flammable liquids in bulk nor to transportation when in conformity with ICC regulations or regulations lawfully on file with and approved by the ICC.

15.1(3) *Retroactivity.* Insofar as the regulations in chapter 15,T.III cover operational practice or use of containers, they shall apply and be enforced as to all plants, stations, establishments and facilities, wherein or whereon flammable liquids are stored, handled or used, whether existing and in service as of the effective date of this act or subsequently established or placed in service. Regulations covering physical installations shall apply to all plants, stations, establishments and facilities erected or installed or first devoted to flammable liquid storage, handling, or use on or after the effective date of these regulations and, to the extent specifically provided for or to the extent necessary to eliminate any distinct hazard to life or adjoining property, shall apply to existing establishments and facilities devoted to storage, handling or use of flammable liquid prior to the effective date of these regulations. For purposes of this rule, conformity with the regulations in this chapter, existing as of the effective date thereof.

a. With respect to the location or arrangement of buildings, tanks, platforms or docks, or to spacing or clearances between these installations or between these installations and adjoining property lines, shall not be deemed to be distinctly hazardous and may be allowed to continue;

b. With respect to vents or pressure relief devices on tanks, control valves on tanks or in piping systems, ventilation or sources of ignition shall be deemed distinctly hazardous and shall be corrected or eliminated;

c. Otherwise than as covered in 15.1(3) "a" or "b" and otherwise than with respect to operational practice and container use shall be subject to evaluation as provided in 15.1(2), before any order for the elimination thereof is issued.

At any plant, station or establishment existing and devoted to flammable liquid use as of the effective date of these rules, existing non-conformity the continuance of which is allowed under the foregoing provisions shall not prevent the installation of additional or replacement facilities which in and of themselves are in conformity with these rules.

15.1(4) Where under the regulations in chapter 15,T.III the application of a requirement to an establishment or facility is conditioned upon a determination of need or upon a determination of whether the continuance of a nonconformity existing as of the effective date of these regulations will or will not constitute a distinct hazard, then before any determination is made or order issued in the premises, the proprietor of the establishment or facility to be affected shall be given an opportunity to be heard with at least ten days written notice of time and place. In the evaluation due consideration shall be given to all existing protection and fire safety devices and the extent to which they eliminate or modify the need or hazard.

15.1(5) Correction or elimination of existing nonconformity in physical installations. Where required correction or elimination of existing nonconformity necessitates the obtaining and installation of additional devices or structural protection or the emptying or temporary nonuse of one or more facilities, then a reasonable time, considering the amount of work to be done, the availability of materials, and the need for continued operation of the facility, shall be allowed therefor. Provided that when work involving reconstruction or modernization of storage facilities is undertaken at a location then any required elimination or correction of nonconformity thereat shall be made in the course of such work. Provided, however, that where practical difficulties are encountered in accomplishing required elimination of nonconformity at any location, an extension or further extension beyond the time specified in any order therefor may be obtained upon written application to the state fire marshal setting forth supporting facts.

15.2(101)T.III Approval of plans for installation for storage, handling or use of flammable liquids.

15.2(1) Except as otherwise provided in 15.2(1) and 15.2(2), before any construction of new or additional installation for the storage, handling or use of flammable liquids is undertaken in bulk plants, service stations and processing plants, drawings or blueprints thereof made to scale shall be submitted to the state fire marshal with an application, all in duplicate, for his approval. Within a reasonable time (ten days) after receipt of the application with drawings or blueprints, the state fire marshal will cause the same to be examined and if he finds that they conform to the applicable requirements of chapter 15,T.III, as written or as modified pursuant to 14.1(10), shall forthwith signify his approval of the application either by endorsement thereon or by attachment thereto, retain one copy for his files and return to the applicant the other copy plus any additional copies submitted by the applicant. If the drawings or blueprints do not conform to the applicable requirements of chapter 15,T.III as written or as modified as aforesaid, he shall within the time aforesaid notify the applicant accordingly.

If proposed construction or installation is to be located within a local jurisdiction which requires that a local permit be first obtained, the drawings or blueprints shall be submitted to the appropriate local official or body with the application for permit and then except in case of dispute need not be submitted to the state fire marshal. The local official or body, as a condition to the issuance of the permit, shall require compliance with the applicable requirements of chapter 15,T.III as written or as modified pursuant to 14.1(10). In the event of dispute as to whether the drawings or blueprints show conformity with the applicable requirements of chapter 15,T.III as aforesaid the plans and drawings shall forth-

with be submitted to the state fire marshal whose decision in the matter shall be controlling.

15.2(2) Drawings shall show the name of the person, firm or corporation proposing the installation, the location thereof and the adjacent streets or highways.

15.2(3) In the case of bulk plants the drawings shall show, in addition to any applicable features required under 15.2(5) and 15.2(6), the plot of ground to be utilized and its immediate surroundings on all sides; complete layout of buildings, tanks, loading and unloading docks; type of construction of each building and the type and the location of heating devices therefor, if any.

15.2(4) In the case of service stations, the drawings, in addition to any applicable features required under 15.2(5) and 15.2(6), shall show the plot of ground to be utilized; the complete layout of buildings, drives, dispensing equipment, greasing or washing stalls and the type and location of any heating device.

15.2(5) In the case of aboveground storage, the drawing shall show the location and capacity of each tank; dimensions of each tank the capacity of which exceeds 50,000 gallons; the class of liquid to be stored in each tank; the type of tank supports; the clearances as covered in 16.2(101)T.III and 16.3(101)T.III; the type of venting and pressure relief relied upon and the combined capacity of all venting and pressure relief valves on each tank, as covered in 16.8(101)T.III; the tank control valves as covered in 16.9(101)T.III; and the location of the pumps and other facilities by which liquid is filled into and withdrawn from the tanks,

15.2(6) In the case of underground storage, the drawings shall show the location and capacity of each tank, class of liquid to be stored therein, together with the clearances and requirements covered in 17.1(101)T.III; and the location of fill, gauge and vent pipes and openings as covered in 17.5(101)T.III.

15.2(7) In the case of an installation for storage, handling or use of flammable liquids within buildings or enclosures at any establishment or occupancy covered in this division, the drawings shall be in such detail as will show whether applicable requirements are to be met.

15.3(101)T.III Definitions.

15.3(1) "Aircraft service station" shall mean that portion of an airport where flammable liquids used as aircraft fuel are stored or dispensed from fixed equipment and shall include all facilities essential thereto.

15.3(2) "Automotive service station" shall mean that portion of a property where flammable liquids used as motor fuels are stored and dispensed from fixed equipment into the fuel tanks of motor vehicles.

15.3(3) "Bulk plant" shall mean that portion of a property where flammable liquids are received by tank vessel, pipe lines, tank car, or tank vehicle, and are stored or blended in bulk for the purpose of distributing such liquids by tank vessel, pipe line, tank car, tank vehicle, or container but does not include a refinery.

15.3(4) "Closed container" shall mean a container as herein defined, so sealed by means of a lid or other device that neither liquid nor vapor will escape from it at ordinary temperatures.

15.3(5) "Commercial or industrial establishment" shall mean a place wherein the storage, handling, or use of flammable liquids is incidental to but not the principal business or process.

15.3(6) "Container" shall mean any can, bucket, barrel, drum, or portable tank, except stationary tanks, tank vehicles, and tank cars.

15.3(7) "Marine service station" shall mean that portion of a property where flammable liquids used as motor fuels are stored and dispensed from fixed equipment on shore, piers, wharves, or barges into the fuel tanks of floating craft, and shall include all facilities used in connection therewith.

15.3(8) "Processing plant" shall mean that portion of a property in which flammable liquids are mixed, heated, separated or otherwise processed as principal business, but shall not include refineries in which flammable liquids are produced on a commercial scale from crude petroleum, natural gasoline, or other hydrocarbon sources.

15.3(9) "Safety can" shall mean an approved portable container, having a spring-closing lid and spout cover.

0 to 750 gals.	I and II	10 feet
751 to 12,000 gals.	III	10 feet
751 to 12,000 gals.	I and II	15 feet
12,001 to 24,000 gals.	I, II and III	15 feet
24,001 to 30,000 gals.	I, II and III	20 feet
30,001 to 50,000 gals.	I, II and III	25 feet

Tanks with capacities in excess of 50,000 gallons and all tanks for storage of crude petroleum shall be located in accordance with the following provisions:

Group A tanks. Any all-steel, gas-tight tank constructed in compliance with these or equivalent standards and equipped either with (a) an approved permanently attached extinguishing system or (b) an approved floating roof, which is to be used only for the storage of refined petroleum products or other flammable liquids not subject to boil-over, shall be so located that the distance from the line of adjoining property which may be built upon shall be not less than the greatest dimension of diameter or height of the tank, except that such distance need not exceed 120 feet.

Group B tanks. Any all-steel, gas-tight tank constructed in compliance with these or equivalent standards but not equipped either with (a) an approved permanently attached extinguishing system or (b) an approved floating roof, which is to be used only for the storage of refined petroleum products or other flammable liquids not subject to boil-over, shall be so located that the distance from the line of adjoining property which may be built upon shall be not less than 1½ times the greatest dimension of diameter or height of the tank, except that such distance need not exceed 175 feet.

Group C tanks. Any all-steel, gas-tight tank constructed in compliance with these or equivalent standards and equipped either with (a) an approved permanently attached extinguishing system or (b) an approved floating roof, which is to be used for the storage of crude petroleum, shall be so located that the distance from the line of adjoining property which may be built upon shall be not less than twice the greatest dimension of diameter or height of the tank except that such distance shall be not less than twenty feet and need not exceed 175 feet.

Group D tanks. Any all-steel, gas-tight tank constructed in compliance with these or equivalent standards and not equipped either with (a) an approved permanently attached extinguishing system or (b) an approved floating roof, which is to be used for the storage of crude petroleum shall be so located that the distance from the line of adjoining property which may be built upon shall be not less than three times the greatest dimension of diameter or height of the tank except that such distance shall be not less than twenty feet and need not exceed 350 feet.

If any adjoining property is used for above-ground tank storage, then the distance between any tank and the line of such adjoining

CHAPTER 16

STORAGE ABOVEGROUND

(Outside of Buildings)

16.1(101)T.III Restricted location. Any approval of plans by the state fire marshal shall be subject to compliance with local zoning and restricted fire district regulations.

16.2(101)T.III Location with respect to property lines. Location of an aboveground tank for storage of flammable liquids with respect to distance from the nearest line of adjoining property which may be built upon, shall be such that the distance between any part of the tank and the line shall be not less than that set forth in the following:

MINIMUM DISTANCE OF OUTSIDE ABOVEGROUND TANKS FOR FLAMMABLE LIQUIDS OTHER THAN CRUDE PETROLEUM TO IMPORTANT BUILDINGS OR LINE OF ADJOINING PROPERTY WHICH MAY BE BUILT UPON

Capacity of Tank	Class of Flammable Liquid	Minimum Distance
0 to 275 gals.	III	0 feet
276 to 750 gals.	III	5 feet

property need be no greater than that necessary to conform to 16.3(101)T.III.

16.3(101)T.III Spacing between tanks.

16.3(1) The location of a tank for the storage of any flammable liquid with respect to any such other tank shall be such that the distance between them shall be not less than three feet.

16.3(2) For tanks above 50,000 gallons individual capacity storing any flammable liquid, except crude petroleum in producing areas, the distance shall be not less than $\frac{1}{2}$ the diameter of the smaller tank.

16.3(3) In producing areas, for tanks storing crude petroleum and having capacities not to exceed 126,000 gallons (3,000 barrels), the distance between tanks shall not be less than three feet; in excess of 126,000 gallons (3,000 barrels), the distance shall be not less than the diameter of the smaller tank.

16.3(4) The minimum separation between a liquefied petroleum gas container and a flammable liquid tank shall be twenty feet. Suitable means shall be taken to prevent the accumulation of flammable liquids under adjacent liquefied petroleum gas containers such as by diking, diversion curbs or grading. When flammable liquid tanks are diked, the liquefied petroleum gas containers shall be outside the diked area and at least ten feet away from the center line of the dike. The foregoing provisions shall not apply when liquefied petroleum gas containers of 125 gallons or less capacity are installed adjacent to class III flammable liquid tanks of 275 gallons or less capacity.

16.4(101)T.III Foundations and supports. Tanks shall rest directly on the ground or on foundations or supports of concrete, masonry, piling, or steel. Exposed piling or steel supports shall be protected by fire-resistive materials to provide a fire-resistance rating of not less than two hours.

Where a tank is to be located in an area that may be subjected to flooding, compliance with the applicable and generally recognized protection shall be provided. Precautions outlined in the latest edition of NFPA No. 30A, Tanks in "Locations Subject to Floods" shall prima facie be deemed to meet the requirements of this rule.

16.5(101)T.III Stairs, platforms and walkways. Stairs, platforms and walkways shall be of steel, concrete or wood.

16.6(101)T.III Dikes and walls.

16.6(1) *Crude petroleum.* Tanks or groups of tanks containing crude petroleum shall be diked or other suitable means taken to prevent discharge of liquid from endangering adjoining property or reaching waterways. Where a diked enclosure is required under this section, it shall have a capacity not less than that of the tank or tanks served by the enclosure.

16.6(2) *Flammable liquids other than crude petroleum.* Individual tanks or groups of tanks, where determined by the state fire marshal to be necessary on account of proximity to waterways, character of topography, or nearness to structures of high value, or to places of habitation or assembly, shall be diked or the yard shall be provided with a curb or other suitable means taken to prevent the spread of liquid onto other property or waterways. Where a diked enclosure is required under this section, it shall have a net capacity not less than that of the largest tank plus ten percent of the aggregate capacity of all other tanks served by the enclosure.

16.6(3) *Dike construction.* Except where protection is provided by natural topography, dikes or retaining walls required under the foregoing section shall be of earth, concrete or solid masonry designed to be liquid tight and to withstand a full hydraulic head, and so constructed as to provide the required protection. Earthen dikes three feet or more in height shall have a flat section at the top not less than two feet wide. The slope shall be consistent with the angle of repose of the material of which the dikes are constructed. Unless means are available for extinguishing a fire in any tank containing crude petroleum, dikes and walls enclosing such tanks shall be provided at the top with a flareback section designed to turn back a boil-over wave, provided, however, that a flareback section shall not be required for dikes and walls enclosing approved floating roof tanks.

16.6(4) *Drainage.* Where provision is made for draining rain water from diked areas, such drains shall normally be kept closed and shall be so designed that when in use they will not permit flammable liquids to enter natural water courses, public sewers, or public drains, if their presence would constitute a hazard.

16.6(5) *Loose combustible material.* No loose combustible material, empty or full drum or barrel, shall be permitted within the diked area.

16.7(101)T.III Design and construction of tanks operating at substantially atmospheric pressure. Tanks shall be built of steel or concrete unless character of liquid stored requires other materials. Steel commonly known as "mill seconds" shall not be used. Tanks built of materials other than steel shall be designed to specifications embodying safety factors equivalent to those herein specified for steel tanks. Unlined concrete tanks shall only be used for storage of liquids having a gravity of 40° A.P.I. or heavier. Concrete tanks with special linings may be used for other services provided the design is approved by the state fire marshal. Steel tanks shall be built in accordance with the requirements of the following subrules. All shop-built tanks shall be tested at a pressure of not less than five and not more than ten p.s.i. (measured at the top of the tank)

for a period of at least ten minutes without leakage or permanent deformation.

16.7(1) Field-erected vertical tanks. Vertical tanks erected in the field and built in accordance with the then current edition of American Petroleum Institute Standard No. 12A, "Specification for Oil Storage Tanks with Riveted Shells," or of American Petroleum Institute Standard No. 12C, "Specification for Welded Oil Storage Tanks," shall prima facie be deemed to comply with the requirements of this subrule.

American Petroleum Institute Standard No. 620, "Rules for the Design and Construction of Large, Welded, Low Pressure Storage Tanks," shall prima facie be deemed to comply with the requirements of this subrule.

16.7(2) Small shop built vertical tanks. Vertical tanks not over 1,100 gallons capacity shall meet the following standards:

Capacity (Gallons)	Minimum Thickness of Steel U. S. Standard
1 - 60	18 gauge
61 - 350	16 gauge
351 - 560	14 gauge
561 - 1,100	12 gauge

16.7(3) Large shop built vertical tanks. Vertical tanks over 1,100 gallons capacity shall meet the following standards:

For tanks up to 25 feet in height the shell shall be not less than 3/16-inch thick. For tanks from 25 to 30 feet high the bottom ring shall be not less than ¼-inch thick and the remainder of the shell not less than 3/16-inch thick. For tanks between 30 and 35 feet high, the first two rings shall be not less than ¼-inch thick and the remainder of the shell not less than 3/16-inch thick. All ¼-inch thick rings shall be not less than 5 feet wide.

The tops of tanks shall be either dished or coneshaped and of not less than No. 10 U. S. standard gauge steel.

Tanks shall be welded, or riveted and caulked, or otherwise made tight in a workmanlike manner. The roof of the tank shall be securely fastened to the top ring of the shell with a joint having the same tightness as the joints between rings. The joint between roof and shell shall be weaker than any other joints in the shell of the tank. Joints in the roof shall be welded or riveted or made tight by other process. Roofs of tanks shall have no unprotected openings.

16.7(4) Production tanks. Vertical tanks not exceeding 126,000 gallons (3,000 barrels) individual capacity, when used for crude petroleum storage in oil producing areas, shall be deemed prima-facie evidence of compliance with this subrule when built in accordance with applicable requirements of the then current edition of American Petroleum Institute Standard No. 12B, "Specification for Bolted Production Tanks," or Standard 12D, "Specifications for Large Welded Production Tanks," or Standard 12F, "Specifications for Small Welded Production Tanks."

16.7(5) Shop built horizontal tanks. Horizontal tanks shall be constructed in accordance with accepted engineering practice and shall meet the following minimum requirements: Joints shall be riveted and caulked, riveted and welded, or welded. Tank heads over six feet in diameter shall be dished, stayed, braced, or reinforced.

a. Small shop built horizontal tanks. Horizontal tanks not over 1,100 gallons capacity shall meet the following standards:

Capacity (Gallons)	Minimum Thickness of Steel U. S. Standard
1 to 60	18 gauge
61 to 275	14 gauge
276 to 550	12 gauge
551 to 1,100	10 gauge

b. Large shop built horizontal tanks. Horizontal tanks over 1,100 gallons capacity having a diameter of not over 6 feet made of steel shall be 3/16-inch or greater nominal thickness. Tanks having a diameter of over 6 feet and not more than 12 feet, made of steel, shall be ¼-inch or greater nominal thickness.

16.8(101) T.III Vents.

16.8(1) Normal breathing. Tanks shall have normal venting capacity sufficient to permit the filling and emptying of such tanks, plus their breathing due to temperature changes, without distortion of tank shell or roof. Tanks storing class I and class II flammable liquids shall be equipped with either venting devices which shall be normally closed when not under pressure or vacuum, or with approved flame arresters, except that tanks under 2,500 gallons capacity for class I liquids and tanks under 3,000 barrels capacity for crude oil in producing areas may have open vents.

16.8(2) Emergency relief. Every above-ground storage tank shall have some form of construction or device that will relieve excessive internal pressure, caused by exposure fires, that might cause the rupture of the tank shell or bottom. In a vertical tank, this construction may take the form of a weakened seam in the roof. The joint between the roof and the shell of a tank thirty-six feet or more in diameter, if built in accordance with 16.7(1), shall be deemed to be a weakened seam for this purpose. Where entire dependence for such additional relief is placed upon some device other than a weak roof seam or joint, the total venting capacity of both normal and emergency vents shall be enough to prevent rupture of the shell or bottom of the tank if vertical, or of the shell or heads if horizontal. Such device may be a self-closing manhole cover, or one using long bolts that permits the cover to lift under internal pressure, or an additional or larger relief valve or valves. For the purpose of computing the number and area of such vents and emergency relief devices, reference may be made to the table in 16.8(3).

16.8(3) The outlet of all vents and vent drains on tanks designed for fifteen p.s.i. or greater pressure shall be arranged to discharge

in such a way as to prevent localized overheating of any part of the tank, in the event vapors from such vents are ignited.

REQUIRED TOTAL PRESSURE RELIEF CAPACITY OF VENTS

Capacity of Tank Gallons	42-gallon Barrels	Total Pressure Relief Capacity (Cu. Ft. of Free Air Per Hour)	Approximate Diameter in Inches of Free Circular Opening for Various Pressures			
			3 In. of Water	1 PSI	2½ PSI	5 PSI
1,000 or less	23.8	25,300	4	2½	2	1½
4,000	95.2	69,500	6¾	3¾	3	2½
18,000	428	139,000	9½	5½	4¼	3¾
25,000	595	166,000	10¾	6	4¾	4
56,000	1,330	253,000	12¾	7¼	5¾	5
100,000	2,380	363,000	15¼	8¾	7	6
155,000	3,690	458,000	17¼	9¾	7¾	6½
222,000	5,290	522,000	18¾	10½	8¾	7
475,000	11,300	624,000	20	11¼	9	7¾
735,000	17,500	648,000	20	11½	9¼	7¾
Unlimited		648,000	20	11½	9¼	7¾

16.9(101)T.III Tank valves.

16.9(1) *External valves.* Each connection to an aboveground tank storing flammable liquids, located below normal liquid level, shall be provided with an external control valve located as close as practicable to the shell of the tank. Except for flammable liquids whose chemical characteristics are incompatible with steel, such valves and their tank connections installed after effective date of these rules shall be of steel.

16.9(2) *Emergency internal check valves.* In addition to any normal valves, there must be an extra valve at each pipe-line connection to any tank below normal liquid level, which valve is effective inside the tank shell and is operated both manually and by an effective heat actuated device which, in case of fire, will automatically close the valve to prevent the flow of liquid from the tank even though the pipe lines are broken from the tank. These extra valves are not required in crude oil tanks in oil fields, on tanks at refineries, or on tanks at terminals which are equipped with a swing line or where facilities are provided to transfer the contents of the tank to another tank in case of fire.

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CHAPTER 17

STORAGE UNDERGROUND
OR IN BUILDINGS

17.1(101)T.III Underground—outside of or under buildings.

17.1(1) *Location.* A flammable liquids storage tank may be located underground, outside of or under a building, if such installation meets the requirements of this section. The tank shall be so located with respect to existing building foundations and supports that the loads carried by the latter cannot be transmitted to the tank. The distance from any

part of a tank storing class III liquids to the nearest wall of any basement, pit, cellar, or property line shall be not less than one foot. The distance from any part of a tank storing class I or II liquids to the nearest wall of any basement, pit, or cellar shall be not less than one foot, and from any property line that may be built upon, not less than three feet.

17.1(2) *Depth and cover.* Excavation for underground storage tanks shall be made with due care to avoid undermining of foundations of existing structures. Underground tanks shall be set on firm foundation and surrounded with soft earth or sand well tamped in place. Tanks shall be covered with a minimum of two feet of earth, or shall be covered with not less than one foot of earth, on top of which shall be placed a slab of reinforced concrete not less than four inches thick. When underground tanks are or are likely to be subjected to traffic, they shall be protected against damage from vehicles passing over them by at least three feet of earth cover, or eighteen inches of well-tamped earth, plus six inches of reinforced concrete or eight inches of asphaltic concrete. When asphaltic or reinforced concrete paving is used as part of the protection, it shall extend at least one foot horizontally beyond the outline of the tank in all directions.

17.1(3) *Anchorage.* Where a tank may become buoyant due to a rise in the level of the water table or due to location in an area that may be subjected to flooding, suitable and generally recognized protection shall be provided to anchor the tank in place. Compliance with the applicable precautions outlined in the then current edition of NFPA Standard No. 30A shall prima facie be deemed to meet the requirements of this subrule.

17.2(101)T.III *Inside of buildings, class I or II liquids.* Tanks for storage of class I and II flammable liquids shall not be installed inside buildings except as provided under chapters 22, 23 and 24, T.III. Tanks for storage of class

I and II flammable liquids may be installed under a building as an underground tank complying with 17.1(101)T.III.

17.3(101)T.III Inside of buildings, class III liquids.

17.3(1) Unenclosed tanks shall not be located within five feet, horizontally, of any fire or flame.

17.3(2) Tanks larger than sixty gallons capacity shall not be located in buildings above the lowest story, cellar or basement, except in commercial, industrial or processing plants where storage on a higher floor is required by the process.

17.3(3) Tanks exceeding 550 gallons individual capacity or 1,100 gallons aggregate capacity in an individual building or in a section of a building separated by firewalls shall be installed in an enclosure constructed as follows: The walls of the enclosure shall be constructed of reinforced concrete at least six inches thick or of brick at least eight inches thick. Such enclosures shall be installed only on concrete or other fire-resistive floors and shall be bonded to the floors. Enclosures shall have tops of reinforced concrete at least five inches thick or equivalent fire-resistive construction, except that where floor or roof construction above the enclosure is concrete or other fire-resistive construction, the walls may be extended to and bonded to the underside of the construction above in lieu of the provision of a separate top. Any openings to such enclosures shall be provided with fire doors or other approved closures and six-inch noncombustible liquid-tight sills or ramps. Provision shall be made for adequate ventilation of such enclosures prior to entering for inspection or repairs to tanks.

17.3(4) In buildings of ordinary construction, the nominal gross capacity of tanks shall not exceed 10,000 gallons. In fire-resistive buildings the nominal gross capacity of the tanks shall not exceed 15,000 gallons. In any building, if in a fire-resistive or detached room cut off vertically and horizontally in an approved manner from other floors of the main building, the nominal gross capacity of tanks shall not exceed 50,000 gallons, with an individual tank capacity not exceeding 25,000 gallons.

17.4(101)T.III Design and construction of tanks.

17.4(1) *Underground tanks or enclosed tanks inside of buildings.* Tanks shall be designed and constructed to withstand safely the service to which subjected. Material other than steel, if used, shall be of suitable durability and of thicknesses providing equivalent strength to that provided by steel. Steel commonly known as "mill seconds" shall not be used. Steel tanks shall be of a minimum gauge (U. S. standard) in accordance with the following table:

Capacity (Gallons)	Minimum U. S. Standard Gauge	Nominal Thickness of Material Pounds per Square Foot
1 to 285	No. 14	3.125
286 to 560	No. 12	4.375
561 to 1,100	No. 10	5.625
1,101 to 4,000	No. 7	7.50
4,001 to 12,000	¼ in.	10.00
12,001 to 20,000	⅝ in.	12.50
20,001 to 30,000	¾ in.	15.00

If adequate internal bracing is provided, tanks of 12,001 to 30,000 gallons capacity may be built of ¼-inch plate.

17.4(2) *Unenclosed tanks inside of buildings.* Tanks of this category used for class III flammable liquids shall not exceed 275 gallons individual capacity. They may be cylindrical or of a special form which has been demonstrated by appropriate tests to possess strength and tightness of an acceptable degree. Material other than steel, if used, shall be of suitable durability and thickness to provide strength equivalent to that provided by steel. Steel commonly known as "mill seconds" shall not be used. Steel tanks shall be of a minimum gauge (U. S. standard) in accordance with the following table:

Capacity (Gallons)	Minimum U. S. Standard Gauge	Nominal Thickness of Material Pounds per Square Foot
1 to 180	No. 16	2.50
181 to 275	No. 14	3.125

17.5(101)T.III Support of tanks in buildings. Inside storage tanks shall be securely supported to prevent settling, sliding or lifting.

17.6(101)T.III Tank connections for tanks underground or in buildings.

17.6(1) Vents.

a. Location and arrangement of vents—Class I or II. Vent pipes from tanks storing class I or class II flammable liquids shall be so located that the discharge point is outside of buildings, higher than the fill pipe opening, and not less than twelve feet above the adjacent ground level. Vent pipes shall discharge only upward or horizontally (not downward) in order to disperse vapors. Vent pipes two inches or less in nominal inside diameter shall not be obstructed by devices that will reduce their capacity and thus cause excessive back pressure. Vent pipe outlets shall be so located that flammable vapors will not enter building openings, or be trapped under eaves or other obstructions. If the vent pipe is less than ten feet in length or greater than two inches in nominal inside diameter, the outlet shall be provided with a vacuum and pressure relief device or there shall be an approved flame arrester in the vent line at the outlet or within the approved distance from the outlet. In no case shall a flame arrester be located more than fifteen feet from the outlet end of the vent line.

b. Location and arrangement of vents—Class III. Vent pipes from tanks storing class III flammable liquids shall terminate outside

of building and higher than the fill-pipe opening. Vent outlets shall be above normal snow level. They may be fitted with return bends, coarse screens or other devices to minimize ingress of foreign material.

c. Size of vents. Each tank shall be vented through piping adequate in size to prevent blow-back of vapor or liquid at the fill opening while tank is being filled. Vent pipes shall be not less than 1¼ inches nominal inside diameter.

d. Vent piping. Vent pipes shall be so laid as to drain toward the tank without sags or traps in which liquid can collect. They shall be located so that they will not be subjected to physical damage above ground. Vent pipes from tanks storing the same class of flammable liquids may be connected into one outlet pipe. The outlet pipe shall at least be one pipe-size larger than the largest individual vent pipe connected thereto. In no case shall the point of connection between vent lines be lower than the top of any fill-pipe opening. The lower end of a vent pipe shall enter the tank through the top and shall not extend into the tank more than one inch.

17.6(2) Fill and discharge piping. Filling and discharge lines for class I and class II liquids, and for class III liquids where practicable, shall enter tanks only through the top and shall be graded toward the tank.

17.6(3) Fill openings. The fill-pipe opening shall be located outside of any building. For class I or II flammable liquid storage the fill-pipe opening shall be not less than five feet from any door or cellar opening. For class III flammable liquid storage the fill-pipe opening shall be not less than two feet from any building opening at the same or lower level. The fill-pipe opening shall be closed and liquid tight when not in use. Fill-pipe for filling by tank car or tank truck shall be not larger than four inch nominal inside diameter and shall not be constricted. Fill-pipe openings shall be identified by a definite color scheme or other means.

17.6(4) Gauge openings. Gauge openings, if independent of fill-pipe, shall be provided with liquid-tight cap or cover. Where class I or class II liquids are stored within a building, such gauge opening shall be protected against vapor release or liquid overflow by means of a spring-loaded check valve or other approved device.

17.6(5) Drainage of tanks in buildings. Inside storage tanks for class III flammable liquids shall be provided with draw-off or drain openings. Tanks shall be installed so that the bottom pitches to the draw-off or drain openings at a slope of not less than ¼ inch per foot of length. The draw-off or drain openings shall be provided with suitable connection to provide a sump from which water or sediment can be drained readily.

17.7(101)T.III Testing. Before being covered or placed in use, tanks and piping con-

nected thereto must pass a test for tightness. Where the vent outlet is not more than fifteen feet above the top of the tank the test pressure shall be at least five p.s.i. and either air or hydrostatic pressure may be used. Where the vent outlet is more than fifteen feet above the top of the tank the test shall be made under hydrostatic pressure with the vent line flooded. In special cases where the height of the vent above the top of the tank is excessive the hydrostatic test pressure shall be specified by the state fire marshal.

CHAPTER 18

STORAGE IN CLOSED CONTAINERS INSIDE BUILDINGS

18.1(101)T.III Scope. Chapter 18 applies to the storage of flammable liquids in drums or other portable closed containers not exceeding sixty gallons individual capacity in areas used solely for such storage. These requirements do not apply to the occupancies detailed in chapters 21, 22, 25 and 26, T.III.

18.2(101)T.III Design and construction of inside storage rooms.

18.2(1) Inside storage rooms shall comply with the following general construction requirements: Walls, floors and ceilings shall be of noncombustible construction having a fire-resistive rating of not less than two hours. Openings to other rooms or buildings shall be provided with noncombustible liquid-tight raised sills or ramps at least six inches in height and with fire doors with heat actuated releasing devices arranged to close doors automatically in case of fire. Where other portions of the building or other properties are exposed, windows shall be protected in a standard manner. No combustible material shall be used in the construction of shelving. Proper ventilation shall be provided and natural ventilation is preferred over mechanical ventilation. Heating shall be restricted to low pressure steam or hot water or to electrical units approved for class I hazardous locations.

18.2(2) Electrical devices located in inside storage rooms used for class I or class II flammable liquids shall be approved for class I, division II hazardous locations and for class III flammable liquids, shall be equipment for general use. Compliance with provisions of the "National Electrical Code" as published by the NFPA shall be deemed prima-facie evidence of compliance with the subrule.

18.2(3) Rooms or portions of buildings, affording a type of building construction and other features equivalent to that required for inside storage rooms [18.2(1) and 18.2(2)] may be utilized for storage of flammable liquids if not used for any other storage or operation which, in combination, create a greater fire hazard.

18.2(4) Storage rooms shall be located to minimize damage in the event of an explosion.

18.2(5) It is recommended that roofs of detached buildings, and where practical the roofs or ceilings of all inside storage rooms, be equipped with large vents so that if a fire occurs the heat will be dissipated to the out-doors.

18.3(101)T.III Storage cabinets.

18.3(1) Storage cabinets may be used where it is desired to keep more than ten gallons of flammable liquids inside buildings. No individual container shall exceed five gallons capacity and not over fifty gallons shall be stored in any one cabinet.

18.3(2) Storage cabinets shall be constructed as follows or built to equivalent requirements. The bottom, top, door and sides of cabinet shall be at least number 18 gauge sheet iron and double walled with 1½-inch air space. Joints shall be riveted, welded or made tight by some equally effective means. The door shall be provided with a three-point lock, kept closed when not in use, and the doorsill shall be raised at least two inches above the bottom of the cabinet. When deemed necessary by the state fire marshal, cabinets shall be vented. The cabinet shall be conspicuously labeled in red letters "FLAMMABLE—KEEP FIRE AWAY".

18.4(101)T.III Manner of storage and limitations.

18.4(1) Flammable liquids shall not be stored (including stock for sale), near exits, stairways or areas normally used for the safe egress of people.

18.4(2) The storage of flammable liquids in closed containers shall comply with the following occupancy schedule except that the state fire marshal may impose a quantity limitation or require greater protection where, in his opinion, unusual hazard to life or property is involved, or he may authorize increase of these amounts where the type of construction, fire protection provided or other factors substantially reduce the hazard.

a. Mixed occupancy. In a mixed occupancy, where any occupancy involves the storage of flammable liquids, that occupancy or that portion of the occupancy devoted to flammable liquid storage, in addition to other requirements, shall be cut off by at least two-hour fire-resistive construction.

b. One, two and three family dwellings and accompanying attached or detached garages. Storage other than fuel oil, prohibited, except that which is required for maintenance or equipment operation which shall not exceed ten gallons. Such flammable liquid shall be stored in metal closed containers or safety cans.

c. Public assemblies, apartments, hotels, theatres and office buildings. Storage prohib-

ited, except that which is required for maintenance and operation of building and operation of equipment. Such storage shall be kept in closed metal containers stored in a storage cabinet or in safety cans or in an inside storage room not having a door that opens into that portion of the building used by the public.

d. Schools, hospitals and institutional buildings. Storage shall be limited to that required for maintenance, demonstration, treatment and laboratory work and shall be in an inside storage room preferably at ground level with at least one exterior wall. Flammable liquids in the laboratories, etc., shall be in small containers (quart or less) or in safety cans or in storage cabinets.

e. Retail stores and department stores. In rooms or areas accessible to the public, storage shall be in closed containers and limited to quantities needed for display and normal merchandising purposes. Additional stock shall be stored in rooms or portions of buildings that comply with the construction requirements of 18.2(101)T.III.

f. General purpose and public warehouses. Storage shall be in fire-resistive buildings or in portions of such buildings cut off by standard fire walls. Noncombustible material, creating no hazard to the flammable liquids, may be stored in the same area.

g. Flammable liquid warehouses or storage buildings. Storage shall be in accordance with 18.4(2) "h". Maximum allowable storage is dependent upon the type of construction of the building, fire protection and drainage provided and potential fire exposure to other important buildings. If storage building is located thirty to fifty feet from important building or line of property which may be built upon, the exposing wall shall be a blank wall having a fire-resistance rating of at least two hours. If storage building is located ten to thirty feet from line of property which may be built upon, the exposing wall shall be a blank wall having a fire-resistance rating of at least three hours. If storage building is less than ten feet from the line of adjoining property which may be built upon, the exposing wall shall be a blank wall having a fire-resistance rating of at least four hours. At the discretion of the state fire marshal approved class A fire doors may be installed in a standard manner on the otherwise blank walls.

h. Flammable containers. Flammable liquid containers shall be stored in accordance with safe practice, in tiers or piles of such height and width and separated by aisles of such width as will permit the free movement of materials and material handling equipment in and out of the storage area. A main aisle of eight feet in width and storage otherwise in conformity with the following table shall prima facie be deemed safe practice.

SPRINKLERED OR EQUIVALENT PROTECTION

		Maximums Per Pile			Min. Width, Side Aisle Feet
		TOTAL WIDTH	HEIGHT		
CLASS I	Ground & Upper Floors	2,640 (48)	8 (4)	6 (2)	5
	Bsmt.*	0	0	0	
	Ground & Upper Floors	5,280 (96)	8 (4)	6 (2)	
CLASS II	Bsmt.*	1,320 (24)	4 (2)	3 (1)	4
	Ground & Upper Floors	11,000 (200)	12 (6)	3 ft. under sprin- kler heads	
	Bsmt.*	5,500 (100)	8 (4)	9 (3)	

UNPROTECTED

		Maximums Per Pile			Min. Width, Side Aisle Feet
		TOTAL WIDTH	HEIGHT		
CLASS I	Ground & Upper Floors	660 (12)	4 (2)	3 (1)	7
	Bsmt.*	0	0	0	
	Ground & Upper Floors	1,320 (24)	4 (2)	3 (1)	
CLASS II	Bsmt.*	0	0	0	5
	Ground & Upper Floors	2,640 (48)	8 (4)	12 (4)	
	Bsmt.*	660 (12)	4 (2)	3 (1)	

18.5(101)T.III Fire control.

18.5(1) Suitable fire-control devices, such as small hose or first aid fire appliances, shall be available at locations where fires are likely to occur.

18.5(2) When sprinkler or equivalent protection is required, it shall be installed in an approved manner. Sprinkler installations made in accordance with the then current edition of the Standards of the National Fire Protection Association for Sprinkler Systems (NFPA No. 13), shall be deemed prima-facie evidence of compliance with the subrule.

18.5(3) Open flames, smoking and other sources of ignition shall not be permitted in flammable liquid storage rooms.

*Basement means a story of a building or structure having one-half or more of its height below ground level and to which access for fire fighting purposes is unduly restricted.

The figures in the column, Total Gallons, represent the number of gallons that may be stored per pile and the figures in parentheses are the corresponding number of 55 gallon drums. The figures in the Width and Height Columns are the width and height of the pile in feet and the figures in parentheses are the corresponding number of 55 gallon drums when stored on end that will produce this size pile.

Nothing in the foregoing table or the provisions of this section with reference thereto shall prohibit storage in tiers or piles of greater width and height and with lesser width aisles, where by reason of the type of construction of the building or clearances of adjoining occupancy no substantial exposure hazard exists.

18.5(4) Materials which will react with water to produce flammable vapors shall not be stored in the same room with flammable liquids.

CHAPTER 19

STORAGE IN CLOSED CONTAINERS OUTSIDE BUILDINGS

19.1(101)T.III Scope. This chapter applies to the storage of flammable liquids in drums or other portable closed containers not exceeding sixty gallons individual capacity in areas used solely for such storage. These requirements do not apply to the occupancies detailed in chapters 21, 22, 25 and 26, T.III.

19.2(101)T.III Basic safeguards.

19.2(1) Drums constructed in accordance with ICC specifications or containers of equivalent construction may be stored out of doors.

19.2(2) Drums shall not be stored outside on building platforms or between buildings, or in locations adjacent thereto, in such a manner that they would contribute to the spread of fire from one building to another.

19.2(3) Storage of over one hundred drums of class I or II flammable liquids shall be limited to groups of one hundred drums, located at least sixty feet from the nearest important building or line of adjoining property that may be built upon and each group shall be separated by at least forty feet. Storage of over 300 drums of class III flammable liquids shall be limited to groups of 300 drums located at least fifty feet from nearest building or line of adjoining property that may be built upon and each group shall be separated by at least thirty feet. These distances may be reduced fifty percent if sprinklers and drainage away from exposures are provided.

19.2(4) The drum storage shall be located to prevent "run-off" or drainage toward other storage or buildings. The area shall be kept clear of grass, weeds and other foreign combustibles. Signs shall be posted prohibiting open flames and smoking.

CHAPTER 20

PIPING, VALVES AND FITTINGS

20.1(101)T.III Materials and design. Piping, valves, and fittings for flammable liquids shall be designed for the working pressures and structural stresses to which they may be subjected. They shall be of steel or other material suitable for use with the liquid being handled. Pipe wall thicknesses determined in accordance with section 3 of the American Standard code for Pressure Piping (ASA B31.1) shall be deemed prima-facie evidence of compliance with this subrule; except that carbon steel pipe shall not be thinner than standard wall thickness listed in the American Standard for Wrought-Steel and Wrought-Iron pipe (ASA B36.10). All threaded joints and

connections shall be made up tight with suitable lubricant or piping compound.

20.2(101)T.III Protection against corrosion.

All piping for flammable liquids, both aboveground and underground, where subject to external corrosion, shall be painted or otherwise protected.

20.3(101)T.III Supports. Pipe systems shall be substantially supported and protected against physical damage and excessive stresses arising from settlement, vibration, expansion or contraction.

20.4(101)T.III Valves. Pipe systems shall contain a sufficient number of valves to operate the system properly and to protect the plant. Pipe systems in connection with pumps shall contain a sufficient number of valves properly to control the flow of liquid in normal operation and in the event of physical damage. Connections to piping, by which equipment such as tank cars or tank trucks discharge flammable liquids by means of centrifugal pumps into aboveground storage tanks, shall be provided with check valves for automatic protection against backflow.

20.5(101)T.III Pumps and piping.

20.5(1) In intraplant systems, pump or piping connected for handling class I or class II liquids shall not be so connected or manifolded as to permit their intermittent or alternate use for class III liquids.

20.5(2) The piping shall have a definite scheme of identification such as, stenciling, tagging or coloring of either the lines or the control valves or both to distinguish the class of product which is being carried by each line.

20.5(3) Pumps delivering to or taking supply from tanks or tank car shall be provided with valves on both suction and discharge of pump.

20.5(4) Subrules 20.5(1), 20.5(2) and 20.5(3) of 20.5(101)T.III do not apply to pipe-line systems operating between or within refineries, boat or barge docks, marine terminals or pipe-line terminals or tank farm storage adjunctive thereto.

CHAPTER 21
BULK PLANTS

21.1(101)T.III Location of plants. Any approval of plans by the state fire marshal shall be subject to compliance with local zoning and restricted fire district regulations.

21.2(101)T.III Storage.

21.2(1) *Storage—class I or II.* Class I and class II flammable liquids shall be stored in closed containers, or in storage tanks aboveground outside of buildings, or underground. (See chapter 16, T.III.)

21.2(2) *Storage—class III.* Class III flammable liquids shall be stored in containers, or

in tanks within buildings or aboveground outside of buildings, or underground. (See chapter 16, T.III.)

21.2(3) *Storage of containers.* Containers of flammable liquids when piled one upon the other shall be separated by dunnage, sufficient to provide stability and to prevent excessive stress on container walls. The height of piles shall be consistent with stability and strength of containers.

21.3(101)T.III Filling and emptying containers.

21.3(1) Containers of class I or class II flammable liquids shall not be drawn from or filled within buildings unless provision is made to prevent the accumulation of flammable vapors in hazardous concentrations.

21.3(2) Except when packaged in the original sealed container as put up for package sale or distribution by the manufacturer or packager with suitable and generally recognized precautionary labeling or when packaged and labeled for shipment in conformity with the regulations of the ICC, no gasoline or benzene nor any naphtha having a flash point at or below 70° F. (closed cup tester) shall be filled into any drum, can or other portable container unless the container is of metal and is colored red and labeled with the common name of the product and with the word "FLAMMABLE".

21.4(101)T.III Ventilation. Ventilation shall be provided for all rooms, buildings, or enclosures in which class I or class II flammable liquids are pumped or dispensed. Design of ventilation systems shall take into account the relatively high specific gravity of the vapors. Ventilation may be provided by adequate openings in outside walls at floor level unobstructed except by louvers or coarse screens. Where natural ventilation is impracticable, mechanical ventilation shall be provided. Mechanical systems, for removing flammable vapors, designed, installed and operated in accordance with National Fire Protection Association standards for the "Installation of Blower and Exhaust Systems" published in National Fire codes, Vol. III, shall be deemed prima-facie evidence of compliance with this rule.

21.5(101)T.III Buildings.

21.5(1) *General construction.* Buildings shall be constructed so that rooms in which flammable liquids are handled or stored comply with the requirements of the zone or area in which located. Class I and class II flammable liquids shall not be stored or handled within a building having a basement or pit into which flammable vapors may travel, unless such area is provided with ventilation designed to prevent the accumulation of flammable vapors therein.

21.5(2) *Exits.* Rooms storing flammable liquids or in which flammable liquids are handled by pumps shall have exit facilities

arranged to prevent occupants being trapped in the event of fire.

21.5(3) Heating. Rooms in which class I or class II flammable liquids are stored or handled shall be heated only by means not constituting a source of ignition, such as steam or hot water. Rooms containing heating appliances involving sources of ignition shall be located and arranged to prevent entry of flammable vapors.

21.6(101) T.III Loading and unloading facilities—truck loading racks.

21.6(1) Location. Truck loading racks installed after effective date of these regulations dispensing class I or class II flammable liquids shall where practicable be separated from tanks, warehouses, other plant buildings, and nearest line of property that may be built upon by a clear distance of not less than twenty-five feet, measured from the nearest position of any fill stem. With reference to 15.1(3), in no case shall a truck loading rack for class I or II liquids be, or be rebuilt nearer than ten feet measured as aforesaid from any of the aforementioned objects. Buildings for pumps or for shelter of loading personnel may be part of the loading rack.

21.6(2) Static protection. The following types of truck loading racks shall be equipped with protection against static sparks during truck filling: Racks dispensing class I or class II flammable liquids into open domes of tank trucks, and racks dispensing class III flammable liquids into open domes of tank trucks which may contain flammable vapors from previous cargoes of class I or class II flammable liquids. Protection shall consist of a metallic bond-wire permanently electrically connected to the fill-stem or some part of the fill-stem piping. The free end of such wire shall be provided with a clamp or similar device for convenient attachment to some metallic part of the cargo tank of the tank truck. The bond-wire connection shall be made prior to opening the dome covers. It shall be maintained in place during the entire filling operation and the dome covers shall be securely closed before the bond-wire is disconnected from the cargo tank.

21.6(3) Tank car racks. Class I and class II flammable liquids shall not be discharged from or loaded into tank cars unless protection against stray currents has been provided and is used. Protection designed and installed in accordance with Circulars of the Association of American Railroads, No. 17-D, and No. 17-E, shall be deemed prima-facie evidence of compliance with this subrule.

21.6(4) No unloading by gravity. The withdrawal of class I or class II liquids from tank cars through bottom outlets shall not be permitted.

21.6(5) The use of compressed air to discharge contents of tank cars is prohibited, but this shall not be construed to prevent the use

of a standard system employing an inert gas, such as carbon dioxide or nitrogen, as pressure generating medium for this purpose.

21.6(6) No unloading to portable containers. Unloading from tank cars to tank trucks or to any other portable containers shall not be permitted.

21.6(7) Tank cars shall not be left connected to pipe lines except when loading or unloading is going on, and during all such time a competent man shall be present and in charge.

21.6(8) Container filling facilities. Class I and class II flammable liquids shall not be run into containers unless the nozzle and container are electrically interconnected. Where the metallic floor-plate on which the container stands while filling is electrically connected to the fill stem or where the fill stem is bonded to the container during filling operations by means of a bond-wire, the provisions of this subrule shall be deemed to have been complied with.

21.6(9) Drainage and waste disposal. Provision shall be made to prevent flammable liquids which may be spilled at loading or unloading points from entering public sewers and drainage systems, or natural waterways. Connection to such sewers, drains, or waterways by which flammable liquids might enter shall be provided with separator boxes or other approved means whereby such entry is precluded. Crankcase drainings and flammable liquids shall not be dumped into sewers, but shall be stored in tanks or tight drums outside of any building until removed from the premises.

21.7(101) T.III Electrical equipment. All wiring and electrical equipment including motors and electrical switch gear for pumps handling class I or class II flammable liquids and located within the possible path of vapor travel shall be designed and installed so as not to create an ignition hazard. Electrical equipment designed and installed in accordance with the then current edition of standards known as the "National Electrical code" as published by the National Fire Protection Association, shall be prima-facie deemed to be in compliance with this rule.

21.8(101) T.III Sources of ignition. Class I or class II flammable liquids shall not be handled, drawn, or dispensed where flammable vapors may reach a source of ignition. Smoking shall be prohibited except in designated locations. "NO SMOKING" signs shall be conspicuously posted where hazard from flammable liquids vapors is normally present.

21.9(101) T.III Fire control. Suitable first aid fire-control devices, such as smothering agents, small hose or portable extinguishers, shall be available to locations where fires are likely to occur.

22.10(101)T.III Care and attendance of property. Property shall be kept free from weeds, high grass, rubbish and litter, and shall be kept neat, clean and orderly throughout.

CHAPTER 22 SERVICE STATIONS

22.1(101)T.III Location, construction and heating. Any approval of plans by the state fire marshal shall be subject to compliance with local zoning regulations.

Apparatus dispensing class I flammable liquids into the fuel tanks of motor vehicles of the public shall not be located at a bulk plant unless separated by a fence or similar barrier from the area in which bulk operations are conducted.

22.1(1) General construction. Buildings shall be constructed so that rooms in which flammable liquids are handled or stored comply with the requirements of the zone or area in which located. Class I and class II flammable liquids shall not be stored or handled within a building having a basement or pit into which flammable vapors may travel, unless such area is provided with ventilation designed to prevent the accumulation of flammable vapors therein.

22.1(2) Building.

a. No basement or excavation shall hereafter be constructed under any service station building. Steps shall be taken to eliminate existing basements upon the occasion of any major remodeling of a service station. This restriction shall not apply to garages.

b. Floor shall preferably be of concrete or other fire resisting materials.

22.1(3) Service pits.

a. Except as otherwise provided in 22.1(3)"c", no service station or filling station shall be constructed or remodeled after the effective date of these regulations in such a manner as to include a service pit.

b. Service pits existing as of the effective date of these rules shall comply with the following:

(1) No sewer connection shall be permitted from any pit, unless protected with an approved grease trap which will effectively intercept greases and oils, and prevent their entry into the sewer.

(2) If service pits are electrically lighted, lights and switches shall be of explosion proof construction and wiring in conduit.

c. In an establishment where greasing or other services are to be regularly rendered to vehicles of such type, size or weight or for other good reason it would be impracticable to utilize ramp or hoist type equipment for these services, a pit may be installed but only after written approval from the state fire marshal upon application in writing accompanied by plans and specifications for the proposed installation. Every such approval shall be

on the condition that the proposed installation be constructed and maintained in conformity with the following requirements:

(1) Each pit must be constructed of poured concrete.

(2) All electric wiring and electric equipment in each pit or used in connection therewith must be explosion proof and all such equipment shall bear the underwriters' laboratories label.

(3) Each pit must be equipped with a mechanical exhaust system capable of exhausting five cubic feet of air per minute per square foot of floor area within the pit and shall have a capacity of not less than 1400 cubic feet per minute. The exhaust system shall be wired electrically so that the system will be in full operation when pit lights are lighted.

(4) The discharge from the exhaust system shall be to the outside atmosphere and located in such a manner that the exhaust air will not re-enter the building.

(5) No sewer connection shall be permitted from any pit, unless protected with an approved grease trap which will effectively intercept greases and oils, and prevent their entry into the sewer.

22.1(4) Heating and lighting.

a. Except as otherwise provided in this rule, heating stoves, space heaters, and furnaces or other heating plants shall not be installed or used in a service station building, in which motor vehicles are greased, serviced or stored.

b. Except as hereinafter provided, service stations which have a room or stall for greasing, servicing or storing motor vehicles shall be heated by means of radiation or connections from hot water vapor, or steam heating systems, of which both the boilers or devices containing combustion chambers and fuel storage shall be installed in a separate heater room. Said heater room shall be cut off from the remainder of the building by standard fire division walls of at least two hours fire-resistive construction extending from the foundation to the roof of building. Provided said walls are continued as a parapet wall to a height of not less than three feet above the roof, ceiling of heater room may be of ordinary construction. In the event said walls are not continued as a parapet wall as herein provided, the ceiling shall be one hour fire-resistive construction.

There shall be no openings in the above mentioned standard fire division walls except those necessary for hot air, hot water, vapor or steam heating pipes.

The only entrance to heater room shall be from outside of building.

c. The following types of heating installations are acceptable without enclosure in a separate heater room.

(1) Oil or gas fired warm air furnaces consisting of burners within enclosed combustion chamber, motor driven air circulating fans, and safety controls, suspended from ceilings

or mounted between uprights and installed at a minimum height of seven feet above the floor. Unless installed in conformity with requirements under which "approved" or in conformity with applicable standards of the National Fire Protection Association, said furnaces shall maintain minimum spacings from combustible walls and ceilings as follows: Sides and rear six inches; above six inches; burner side forty-eight inches; flue pipe eighteen inches.

(2) Gas-fired unit heaters which have their flame protected from drafts of air and contact with combustible materials, consisting essentially of burners with enclosed combustion chambers, flue, air circulating motor driven fans, safety controls, designed to be suspended from ceilings or mounted between uprights and installed at least seven feet above the floor, and (unless installed in conformity with requirements under which "approved" or in conformity with applicable standards of the National Fire Protection Association) maintaining minimum spacing to combustible walls from the casing of the unit heater as follows: Sides and rear six inches; above six inches; flue pipe nine inches.

(3) Electrical unit heaters constructed and installed to conform to the then current edition of Underwriters' Laboratories, Inc., "Standard for Electric Heating Appliances".

Heating units permitted in sections 22.1(4), ["c", (1), (3)] shall be approved by Underwriters' Laboratories, Inc.

d. Service stations which do not have room or stall for greasing, servicing, or storing motor vehicles, may be heated in any conventional manner.

e. All electric lighting appliances and wiring shall conform to the current National Electrical code.

22.2(101)T.III Storage and handling.

22.2(1) *General provisions.* Class I and class II flammable liquids shall be stored in closed containers, or in tanks located underground or in special enclosures as described in 22.2(2) of this chapter. Class III flammable liquids shall be stored in containers or in tanks located underground or in special enclosures as described in section 22.2(2) of this chapter. Aboveground tanks shall not be connected by piping to service station underground tanks.

22.2(2) *Special enclosures.* When installation of tanks in accordance with 17.1(101)T. III is impractical because of property or building limitations, tanks for flammable liquids may be installed in buildings if enclosed as follows: Enclosure shall be substantially liquid and vapor tight without backfill. Sides, top and bottom of the enclosure shall be of reinforced concrete at least six inches thick or approved solid-unit masonry equivalent-fire-resistive construction built to withstand the lateral pressure due to the liquid head, with openings for inspection through the top

only. Tank connections shall be so piped or closed that neither vapors nor liquid can escape into the enclosed space. Means shall be provided whereby portable equipment may be employed to discharge to the outside any vapors which might accumulate should leakage occur.

22.2(3) *Storage inside buildings.* No class I flammable liquids shall be stored or handled within any service station building except packaged items, for example: Cleaning fluid received and resold in unbroken metallic containers of not over one gallon capacity each, or in approved nonmetallic containers of not more than one quart capacity each. Class II flammable liquids in closed containers may be stored inside the station building. A container equipped with an approved pump shall be considered a closed container for purposes of storage only. No class I or class II flammable liquids shall be dispensed, or transferred from one container to another, inside of a service station building, provided, however, that flammable antifreeze liquids may be dispensed in rooms of a service station building provided such rooms have approved heating devices and provided also that there is no open flame in such room lower than seven feet above floor level. Class III liquids may be stored and dispensed inside service station buildings from approved containers of not more than 120 gallons capacity each.

22.2(4) Except when sold in the original sealed container as put up for package sale or distribution by the manufacturer or packager with suitable and generally recognized precautionary labeling no gasoline or benzene nor any naphtha having a flash point at or below 70° F. (closed cup tester) shall be sold or filled into any drum, can or other portable container unless the container is of metal and is colored red and labeled with the common name of the product and with the word "FLAMMABLE."

No kerosene, fuel oil or similar liquid shall be filled into any portable container colored red.

22.2(5) *Dispensing containers.* No delivery of any class I or II flammable liquids shall be made into portable containers of ten gallons capacity or less unless the container is of sound metal construction, has a tight closure with screwed or spring cover and is fitted with a spout or so designed that the contents can be poured without spilling or can be safely withdrawn by connection to a fuel line.

22.2(6) *Bulk sales prohibited.* No motor fuels shall be dispensed from storage at any service station except directly into the fuel tanks of motor vehicles, when such tanks are connected with the carburetion systems of such vehicles provided, however, that individual sales up to ten gallons may be made in containers meeting the requirements of 22.2(4) and 22.2(5).

22.3(101)T.III Dispensing devices.

22.3(1) Design and construction. Class I and class II flammable liquids shall be transferred from underground tanks by means of fixed pumps so designed and equipped as to allow control of the flow and to prevent leakage or accidental discharge. Supplemental means shall be provided outside of the dispensing device whereby the source of power may be readily disconnected in the event of fire or other accident. Dispensing devices for class I or class II flammable liquids shall be of approved type. Devices meeting the standards of the Underwriters' Laboratories, Inc., shall be deemed to be in compliance with this section. Class I or class II flammable liquids shall not be dispensed by pressure or gravity from drums, barrels, and similar containers. Gear pumps or similar positive displacement devices taking suction through the top of the container shall be used. Class I and class II flammable liquids shall not be dispensed by a device that exerts internal pressure against the shell or a storage tank, unless the tank has been approved as a pressure vessel for the use to which it is subjected. In no case shall air or gas pressure be used for this purpose.

22.3(2) Automatic dispensing devices. The installation and use of coin-purchaser-operated dispensing devices for class I flammable liquids is prohibited. The dispensing of class I flammable liquids into the fuel tank of a vehicle or into a container shall at all times be under the control of a competent person. The use of any device which permits the dispensing of class I flammable liquids when the hand of the operator of the discharge nozzle is removed from the nozzle control lever is hereby forbidden except when using an automatic nozzle as provided in 22.3(2), "a".

a. Automatic nozzles with latch-open devices. In lieu of being held open by hand, an approved automatic nozzle may be used for dispensing class I flammable liquid into the fuel tank of a vehicle. Such a nozzle shall have the latch-open device as an integral part of the assembly and shall shut off the liquid reliably and positively when the gasoline tank is filled, when it falls from the filling neck of an automobile tank, when it is subject to rough usage such as dropping or lack of proper lubrication, or when an automobile is driven away while the nozzle is still in the tank. A competent attendant shall be in the immediate vicinity of the vehicle being filled by such an approved nozzle.

b. No self-service permitted. No person other than the service station proprietor or an authorized employee shall use or operate any motor fuel dispensing equipment at any service station.

c. Location. Dispensing devices at automotive service stations shall be so located that all parts of the vehicle being served will be on private property.

d. Inside garages. Where an outside location is impractical, dispensing devices for inside use may be approved for installation inside garage or similar establishment storing, parking, servicing or repairing automotive equipment. The dispensing device shall be located in an area of fire-resistive construction well away from vehicle storage and repair areas and well ventilated, preferably near a doorway. It shall be protected against physical damage by vehicles by mounting on a concrete island or by equivalent means and shall be located in a position where it cannot be struck by a vehicle descending a ramp or other slope out of control. A convenient remote emergency shut-off for electric power to the dispensing unit and the pump supplying it shall be provided.

22.4(101)T.III Remote pumping systems.

22.4(1) Scope. This subrule shall apply to systems for dispensing class I flammable liquid to the fuel tanks of motor vehicles at automotive service stations where such liquid is transferred from underground storage to individual or multiple dispensing units by pumps located elsewhere than at the dispensers.

22.4(2) Pumps. Pumps shall be designed or equipped so that no part of the system will be subjected to pressures above the system's allowable working pressure. Pumps installed above grade, outside of buildings, shall be located not less than ten feet from lines of adjoining property which may be built upon, and not less than five feet from any building opening. When an outside location is impractical, pumps may be installed inside of garages as provided for dispensers in 22.3(2), "d", or they may be installed in special enclosures as described in section 43.10 NFPA except that approved fire doors are permitted, or in pits as described in 22.4(3). Pumps shall be substantially anchored and protected against physical damage by vehicles.

22.4(3) Pits. Pits for subsurface pumps or piping manifolds of submersible pumps shall withstand the external forces to which they may be subjected without damage to the pump, tank, or piping. The pit shall be no larger than necessary for inspection and maintenance and shall be provided with a close-fitting cover.

22.4(4) Testing. After the completion of the installation including any paving, the section of the system, between the pump discharge and the connection for the dispensing facility, shall be tested for at least thirty minutes at a pressure fifty percent above the maximum pump pressure. Five years after installation and biannually thereafter, the system shall be subjected to a test for leakage of at least thirty minutes duration at the maximum pump pressure.

22.4(5) Controls.

a. A control shall be provided that will permit the pump to operate only when a

dispensing nozzle is removed from its bracket on the dispensing unit and the switch on this dispensing unit is manually actuated. This control shall also stop the pump when all nozzles have been returned to their brackets.

b. There shall be a means, visible from the operating area, to indicate when the pump motor is running.

c. A readily accessible, clearly identified switch shall be provided to shut off the power to the pump motors. An approved automatic device shall be provided at each dispensing unit that will stop the flow of fuel at the dispensing unit in case of fire or physical damage to the dispensing unit.

22.5(101)T.III Marine service station.

22.5(1) Pumps supplying flammable liquids at marine service stations shall be located on shore, or on a pier of solid-fill type, where practicable.

22.5(2) Class I or II flammable liquids shall not be dispensed into fuel tanks of marine craft except by means of a hose, equipped with a self-closing nozzle and with a valve which must be held open by manual control while making a delivery.

22.5(3) Pipe lines at marine service stations, where attached to piers, wharves, or other structures, shall be protected against physical damage. A valve shall be provided in each line at or near the approach to the pier, wharf, or other structure whereby supply from shore may be shut off.

22.5(4) Flammable liquids may be dispensed into the fuel tanks of marine craft from tank trucks by means of a hose equipped with a self-closing nozzle and in the case of class I or II liquids with a valve which must be held open by manual control while making a delivery or from approved safety cans.

22.6(101)T.III Drainage and waste disposal. Provision shall be made in the area where class I flammable liquids may be spilled to prevent liquids from flowing into interior of service-station buildings. Such provision may be by grading driveway, raising doorsills, or other equally effective means. Crankcase drainings and flammable liquids shall not be dumped into sewers, but shall be stored in tanks or tight drums outside of any building until removed from the premises.

22.7(101)T.III Safety rules. There shall be no smoking on the driveway of service stations in the areas used for fueling motor vehicles, dispensing flammable antifreeze or the receipt of products by tank truck, or in those portions of the buildings used for servicing automobiles, tractors or internal combustion engines. The motors of all vehicles being fueled shall be shut off during the fueling operation.

22.7(1) No open lights or flames shall be permitted about premises except in approved

heating devices and for necessary maintenance.

22.7(2) Premises shall be kept neat and clean, and free from rubbish or trash.

22.7(3) Cleaning with gasoline, naphtha, or other highly flammable liquids of classes I and II shall not be permitted in or around the service station.

22.8(101)T.III First-aid fire appliances. Suitable first-aid fire-control devices, such as small hose or portable extinguishers, shall be available to locations where fires are likely to occur.

CHAPTER 23

COMMERCIAL AND INDUSTRIAL ESTABLISHMENTS

23.1(101)T.III Manner of storage.

23.1(1) Flammable liquids shall be stored in tanks, closed containers or approved safety cans.

23.1(2) Flammable liquids stored in tanks shall conform to the applicable requirements of chapter 16 or 17,T.III.

23.1(3) Flammable liquids stored in drums and other closed containers shall conform to the applicable requirements of chapter 18 or 19,T.III.

23.1(4) Flammable liquids used, mixed or handled in tanks, drums or other containers shall conform to the applicable requirements of 23.2(101)T.III.

23.2(101)T.III Use of flammable liquids.

23.2(1) Location. Flammable liquids in quantities requiring a permit shall be used in buildings, portions of buildings or rooms constructed and designed in accordance with the requirements of inside mixing and handling rooms.

23.2(2) Design and construction of inside mixing and handling rooms. Rooms shall have at least one exterior wall. Walls, floors and ceilings shall be of noncombustible construction having at least a two hour fire-resistive rating. Doors shall be provided with noncombustible liquid-tight sills at least six inches high and provided with an approved class B fire door of the self-closing type. Adequate drainage to a safe location shall be provided. Adequate natural ventilation shall be provided or if mechanical ventilation is provided, compliance with appropriate requirements of the NFPA Standards on Blower and Exhaust Systems for Dust, Stock and Vapor Removal, No. 91 shall be deemed prima-facie evidence of compliance with this subrule. Heating shall be by low pressure steam or hot water or by electrical units approved for class I hazardous locations. Lighting and electrical devices shall be approved for class I hazardous locations. All equipment such as mixers, filters, pumps, motors, and shafting shall be permanently and

effectively grounded. Electrical installations made in accordance with the then current edition of National Electrical code shall be deemed prima-facie evidence of compliance with this subrule.

23.2(3) Storage limits for inside mixing and handling rooms.

a. An inside mixing and handling room not protected by an approved automatic fire extinguishing system shall contain not more than

(1) Eleven hundred gallons total of classes I, II and III flammable liquids of which not more than,

(2) Five hundred fifty gallons may be of classes I and II flammable liquids of which not more than,

(3) Two hundred seventy-five gallons may be of class I flammable liquid.

b. An inside mixing and handling room protected by an approved automatic fire extinguishing system shall not contain more than

(1) Eleven thousand gallons total of classes I, II and III flammable liquids of which not more than,

(2) Twenty-seven hundred fifty gallons may be of classes I and II flammable liquids of which not more than,

(3) Five hundred fifty gallons may be of class I flammable liquid.

(4) These amounts may be increased to not more than one day's supply where daily consumption exceeds the above limits.

23.2(4) Where applicable, installations made in accordance with the then current edition of NFPA Standards for Dry Cleaning Plants, No. 32; for Dip Tanks Containing Flammable or Combustible Liquids, No. 34; and Spray Finishing Using Flammable Materials, No. 33 shall be deemed prima-facie evidence of compliance with this subrule.

23.3(101) T.III Dispensing.

23.3(1) Class I or class II flammable liquids shall be dispensed only in an inside mixing and handling room.

23.3(2) Class I or class II flammable liquids shall not be drawn from or dispensed into vessels or containers within a building except by means of a device drawing from top of the tank or the container. Gravity discharge within a building of class I or class II flammable liquids from tanks, drums, or containers other than safety cans, is specifically forbidden, except where the nature of the manufacturing process requires gravity flow. Upon approval of the state fire marshal, such gravity flow shall be permitted only from vessels storing flammable liquids sufficient for not more than one day's operation.

23.3(3) Class I or class II flammable liquids shall not be dispensed within a room or building which normally contains source of ignition, within the possible path of vapor travel. Dispensing devices shall be provided with iron or steel valves where compatible

with the flammable liquid handled. Where practicable, there shall be, in addition to the outlet valve, a secondary control device or valve outside of the immediate area, by which the flow may be stopped in the event of fire or other accident at the outlet. Outlet valves, where practicable, shall be of the self-closing type.

23.3(4) Container filling facilities. Classes I and II flammable liquids shall not be run into containers unless the nozzle and container are electrically interconnected. Where the metallic floor plate on which the container stands while filling is electrically connected to the fill stem or where the fill stem is bonded to the container during filling operations by means of a bond-wire, the provisions of this subrule shall be deemed to have been complied with.

23.3(5) Exits. Exit facilities shall be provided to prevent occupants being trapped in the event of fire.

23.4(101) T.III Ventilation.

23.4(1) Buildings, or rooms or other enclosures in which class I or class II flammable liquids are used or stored in open vats or dip tanks shall be provided with ventilation sufficient at all times to prevent accumulation of flammable vapors. Where natural ventilation is insufficient under all conditions to prevent the accumulation of flammable vapors, mechanical ventilation shall be provided and used. The accumulation of flammable vapors within the combustible or explosive range under normal operating conditions, as determined by an approved flammable-vapor indicator, shall be prima-facie evidence of the violation of this subrule.

23.4(2) Design of ventilating systems shall take into account the relatively high specific gravity of the vapors. Openings to the outside for natural ventilation shall be at floor level and shall be unobstructed except by louvers, or coarse screens. Mechanical systems for removing flammable vapors, designed, installed and operated in accordance with the then current edition of National Fire Protection Association Standards for the Installation of Blower and Exhaust Systems shall be deemed prima-facie evidence of compliance with this subrule.

23.5(101) T.III Sources of ignition. Open flames, heating devices and processes employing temperatures capable of igniting the vapors of the flammable liquids used shall be prohibited in buildings, rooms and other confined spaces in which class I or class II flammable liquids are used in the open, or in which class III flammable liquids are used for the purpose of saturating, coating or otherwise treating goods or materials. Artificial lighting shall be by electricity only. Electric devices located within the possible path of vapor travel shall be of a type approved for such locations. Compliance with applicable

provisions of the National Electrical code as published by the National Fire Protection Association shall be deemed prima-facie evidence of compliance with this rule. Smoking shall be prohibited and suitable signs to that effect shall be displayed.

23.6(101)T.III Fire control.

23.6(1) Inside mixing and handling rooms may be sprinklered or unsprinklered. Where flammable liquids are used or dispensed, approved first-aid fire appliances shall be provided. The number and type of appliances meeting the current standard for First Aid Fire Appliances NFPA No. 10 shall be deemed prima-facie evidence of compliance with this subrule.

23.6(2) Wherever flammable liquids are stored in containers, provisions shall be made and maintained for the detection of leakage. Leaking containers shall be immediately removed or made tight.

23.6(3) Access shall be provided by unobstructed aisles whereby first-aid fire-control apparatus may be brought to bear on any part of such flammable liquids storage.

23.6(4) In buildings, rooms or other confined spaces in which flammable liquids are stored, combustible waste materials shall not be allowed to accumulate, except in closed metal containers.

23.6(5) Crankcase drainings and flammable liquids shall not be dumped into sewers, but shall be stored in tanks or tight drums outside of any building until removed from the premises.

23.6(6) Cleaning with gasoline, naphtha, or other highly flammable liquids of classes I and II shall not be permitted.

CHAPTER 24

PROCESSING PLANTS

24.1(101)T.III Manner of storage.

24.1(1) Flammable liquids shall be stored in tanks, closed containers or approved safety cans.

24.1(2) Flammable liquids stored in tanks shall conform to the applicable requirements of chapter 16 or 17,T.III.

24.1(3) Flammable liquids stored in drums or other closed containers shall conform to the requirements of chapter 18 or 19, T.III.

24.1(4) Storage of flammable liquids within rooms or buildings not meeting the requirements of Chapter 16,T.III shall be limited in accordance with the following:

a. Within wood frame buildings, storage of class I and class II flammable liquids shall be prohibited; storage of class III flammable liquids shall be limited to sixty gallons in any tank or container unless installed and

constructed in accordance with chapter 16,T.III.

b. In other than wood frame buildings, class I flammable liquids may be stored in closed containers or safety cans of not more than five gallons individual capacity and not exceeding a total of twenty-five gallons. Class II flammable liquids may be stored in closed containers or safety cans of not more than five gallons individual capacity, and in barrels, drums, or tanks of not more than sixty gallons individual capacity. The total quantity that may be stored in this manner shall be limited to 220 gallons. Class III flammable liquids may be stored in closed containers of not more than five gallons individual capacity, or in barrels, drums, or tanks not exceeding 120 gallons individual capacity. The total quantity stored in this manner shall be limited to 220 gallons.

24.2(101)T.III Blending and mixing.

24.2(1) Mixing or blending rooms or buildings shall meet the design standards of 23.2(2). Mixing or blending rooms or buildings shall be provided with natural or mechanical ventilation that will prevent the accumulation of flammable vapors in hazardous concentrations. Design of ventilating systems shall take into account the relatively high specific gravity of the vapors. Openings in outside walls for natural ventilation shall be at floor level and shall be unobstructed except by louvers, or coarse screens. Mechanical systems for removing flammable vapors, designed, installed and operated in accordance with the then current edition of National Fire Protection Association Standards for the Installation of Blower and Exhaust Systems shall be deemed prima-facie evidence of compliance with this subrule.

24.2(2) Vessels used for mixing or blending of class I flammable liquids shall be provided with self-closing tight-fitting noncombustible lids that will control a fire within such vessel when applied thereto. Where such devices are impracticable, approved automatic or manually controlled chemical or other fire-extinguishing devices shall be used.

24.2(3) Open flames and other sources of ignition shall not be used within the possible path of vapor travel where flammable liquids are mixed or blended in open containers.

24.2(4) Vessels shall be electrically connected by bond-wires, piping or similar means, where differences of potential could otherwise be created by accumulation of static-electrical charges.

24.3(101)T.III Dispensing from containers within buildings.

24.3(1) Class I or class II flammable liquids may be dispensed from approved safety cans, provided that there are no open flames or other sources of ignition within the possible path of vapor travel.

24.3(2) Class III flammable liquids may be dispensed from containers not exceeding

sixty gallons in individual capacity by means of a pump or similar device taking suction through the top of the container.

24.4(101)T.III Sources of ignition. Open flames, heating devices and processes employing temperatures capable of igniting the vapors of the flammable liquid used shall be prohibited in buildings, rooms and other confined spaces in which class I or class II flammable liquids are used in the open, or in which class III flammable liquids are heated above their flash point in open containers. Artificial lighting shall be by electricity only. Electrical devices located within the possible path of vapor travel shall be of a type approved for such locations. Electrical devices meeting the applicable standards of the current edition of the National Electrical code as published by the National Fire Protection Association, shall be deemed prima-facie evidence of compliance with this rule.

24.5(101)T.III Housekeeping.

24.5(1) Wherever flammable liquids are stored in containers, provisions shall be made and maintained for the detection of leakage. Leaking containers shall be immediately removed and the contents transferred to a tight container.

24.5(2) Access shall be provided by unobstructed aisles whereby first-aid fire-control apparatus may be brought to bear on any part of such flammable liquids storage.

24.5(3) In buildings, rooms or other confined spaces in which flammable liquids are stored, combustible waste materials shall not be allowed to accumulate, except in closed metal containers.

24.5(4) Crankcase drainings and flammable liquids shall not be dumped into sewers, but shall be stored in tanks or tight drums outside of any building until removed from the premises.

24.5(5) Cleaning with gasoline, naphtha, or other highly flammable liquids of classes I and II shall not be permitted.

24.6(101)T.III First-aid fire control. Where flammable liquids are stored, or are used in open vessels, or are dispensed within buildings or other enclosures, first-aid fire-control equipment shall be provided in such quantities as public safety shall require. The number and type of appliances meeting the Standards for First Aid Fire Appliances as published by the National Fire Protection Association shall be deemed prima-facie evidence of compliance with this rule.

CHAPTER 25
OIL BURNING EQUIPMENT

25.1(101)T.III Oil burners. Heating and other devices using oil burners shall be installed, maintained and operated in accordance with recognized safe practices. Burners and

accessories such as piping, tanks, vents, control devices, etc., installed in compliance with the then current edition of National Fire Protection Association Standards for the Installation of Oil Burning Equipment (NFPA No. 31), shall be deemed prima-facie evidence of compliance with the installation requirements of this rule.

25.2(101)T.III Fuel oil. The grade of fuel oil used in a burner shall be that for which the burner is listed and as stipulated by the manufacturer. Crankcase oil or any oil containing gasoline shall not be used.

CHAPTER 26
FARM STORAGE
OF FLAMMABLE LIQUIDS

26.1(101)T.III Scope. The standards are intended to apply to flammable liquids used for fuel for internal combustion engines and for agricultural processes such as spraying, flame cultivation, etc. It does not apply to the storage of fuel oil for heating purposes, which is covered by chapter 25, T.III.

26.2(101)T.III Types of approved storage. Storage of flammable liquids in rural districts for private use shall be permitted in any of the following ways:

26.2(1) Underground storage as provided in chapter 17, T.III.

26.2(2) Aboveground storage in tanks the capacity of which exceeds 500 gallons as provided in chapter 16, T.III and located at least forty feet from any building.

26.2(3) Containers of sixty gallons or less capacity each, in accordance with applicable standards set forth in this chapter.

26.2(4) Containers of 60 to 550 gallons capacity each, in accordance with applicable standards set forth in this chapter.

26.3(101)T.III Individual containers of sixty gallons or less capacity each. Flammable liquids in containers of sixty gallons or less capacity shall be stored outside buildings in substantial closed metal drums of sixty gallons or less capacity each. Discharge devices requiring pressure on the container are prohibited. Pumping devices or faucets used for dispensing flammable liquids shall be well maintained to prevent leakage. Individual containers shall not be interconnected.

Containers as provided in this rule shall be stored outside at least forty feet from any building or may be stored inside of a building used exclusively for the storage of flammable liquids and located at least forty feet from any other building. Buildings used for storage of flammable liquids shall be provided with cross ventilation with at least two vents of sixty-four square inches area each, placed at floor level.

26.4(101)T.III Containers of sixty to five hundred fifty gallons capacity each.

26.4(1) Flammable liquids in aboveground containers of 60 to 550 gallons capacity shall be stored outside buildings in containers of single compartment design and constructed throughout of fourteen-gauge metal or heavier and made vapor tight by welding or equivalent construction.

26.4(2) A fill opening shall be provided and shall be equipped with a closure designed so that it may be locked.

26.4(3) A vent shall be provided to relieve such vacuum or pressure as will develop in normal operation or from exposure to fire. Such vent shall have a free opening of 1½-inches diameter.

26.4(4) Containers as provided in this rule shall be kept outside and at least forty feet from any building and shall be so located or such additional distance to buildings shall be provided as will insure that no vehicle, equipment or vessel being filled directly from such container shall be closer than forty feet to any building.

26.4(5) Containers as above may be of either of the following types:

a. Containers with top openings only.

Containers constructed and located as provided above may be designed with all openings in the top of the tank and in such event shall be mounted and equipped as follows:

Stationary containers shall be mounted on timbers or blocks approximately six inches in height so as to protect the bottom of the container from corrosion from contact with the ground and when so placed to be in a stable position; or portable containers may be equipped with attached metal legs resting on shoes or runners to be at least one tank diameter apart, which in turn rests upon the ground, designed so that the container is supported in a stable position and so that the entire container and its supports may be moved as a unit.

Containers shall be equipped with a tightly and permanently attached approved pumping device having an approved hose of sufficient length for filling vehicles, equipment or vessels to be served from the container. Either the pump or the hose shall be equipped with a padlock to its hanger to prevent tampering. An effective antisiphoning device shall be included in the pump discharge. Siphons or internal pressure discharge devices are prohibited.

b. Containers elevated for gravity discharge. Containers constructed and located as above may be designed with an opening in the bottom or the end of the tank for gravity dispensing of flammable liquids and shall be mounted and equipped as follows:

Supports to elevate the tank for gravity discharge shall be of adequate strength and design to provide stability.

On containers installed after the effective date of these regulations, each bottom opening for gravity discharge shall be equipped with

an internal safety valve, which will close automatically in the event of fire through the operation of an effective heat releasing device and which likewise may be quickly operated manually. The gravity discharge outlet shall be provided with an approved hose equipped with a self-closing valve at the discharge end, of a type that can be padlocked to its hanger to prevent tampering.

26.5(101)T.III Marking of containers. Containers for the storage of flammable liquids in rural districts shall be conspicuously marked with the name of the product which they contain and "FLAMMABLE — KEEP FIRE AND FLAME AWAY." If any such containers are portable and are used for the storage of class I or class II flammable liquids, they shall be painted red and labeled with the common name of the product and with the word "FLAMMABLE." No kerosene, fuel oil or similar liquids shall be placed in a red container.

CHAPTER 27

TRANSPORTATION AND DELIVERY OF FLAMMABLE LIQUIDS BY TANK VEHICLES

27.1(101)T.III Scope. This regulation applies to tank motor vehicles to be used for the transportation or delivery of flammable liquids. It is intended to provide requirements for the design, construction and operation of tank motor vehicles, their appurtenances, and certain features of tank motor vehicle chassis.

Additional safeguards may be necessary for tank vehicles used for the transportation of flammable liquids having characteristics introducing additional factors such as high rates of expansion, corrosiveness and toxicity.

Nothing in this regulation shall be construed to prevent any shipment made in accordance with the interstate commerce commission regulations.

27.2(101)T.III Definitions.

27.2(1) Tank truck. Any single self-propelled motor vehicle equipped with a cargo tank mounted thereon, and used for the transportation of flammable liquids.

27.2(2) Tank full trailer. Any vehicle with or without auxiliary motive power, equipped with a cargo tank mounted thereon or built as an integral part thereof and used for the transportation of flammable liquids, and so constructed that practically all of its weight and load rests on its own wheels. (*Note: Not permitted under Iowa law.*)

27.2(3) Tank semitrailer. Any vehicle with or without auxiliary motive power, equipped with a cargo tank mounted thereon or built as an integral part thereof, and used for the transportation of flammable liquids, and so constructed that, when drawn by a tractor by means of a fifth wheel connection, some part of its load and weight rests upon the towing vehicle.

27.2(4) *Tank vehicle.* Any tank truck, tank full trailer, or tractor and tank semitrailer combination.

27.2(5) *Cargo tank.* Any container having a liquid capacity in excess of one hundred gallons, used for the carrying of flammable liquids, and mounted permanently or otherwise upon a tank vehicle. The term "cargo tank" does not apply to any container used solely for the purpose of supplying fuel for the propulsion of the tank vehicle upon which it is mounted.

27.2(6) *Baffle.* A non-liquid-tight transverse partition in a cargo tank.

27.2(7) *Compartment.* A liquid-tight division in a cargo tank.

27.2(8) *Head and bulkhead.* A liquid-tight transverse closure at the end of a cargo tank or between compartments of a cargo tank.

27.3(101)T.III Cargo tanks, piping and connections.

27.3(1) *Cargo tanks constructed of mild steel.*

a. *Material.* All sheets for such cargo tanks shall be of mild steel to meet the following requirements:

Yield point, minimum—25,000 pounds per square inch.

Ultimate strength, minimum—45,000 pounds per square inch.

Minimum elongation, standard two-inch sample—twenty percent.

b. *Thickness of sheets.* The minimum thicknesses of tank sheets shall be limited by the volume capacity of the tank expressed in terms of gallons per inch of length; and by the distance between bulkheads, baffles, or other shell stiffeners, as well as by the radius of shell curvature in case of shell sheets; as follows:

MINIMUM THICKNESS OF HEAD, BULKHEAD AND BAFFLE SHEETS*
Mild Steel

Heads, Bulkheads, or Baffles Volume Capacity of Tank in Gallons per Inch of Length Manufacturers Gauge No.	(Dished, Corrugated, Reinforced or Rolled)			
	10 or Less	Over 10 to 14	Over 14 to 18	Over 18
	14	13	12	11

MINIMUM THICKNESS OF SHELL SHEETS

Volume Capacity of Tank in Gallons Per Inch of Length	Mild Steel					
	Distance Between Attachments of Bulkheads, Baffles or Other Shell Stiffeners					
	36 inches or less		Over 36 inches to 54 inches		Over 54 inches	
	Gauge** No.	Approx. Thick. Decimals of in.	Gauge** No.	Approx. Thick. Decimals of in.	Gauge** No.	Approx. Thick. Decimals of in.
Maximum Shell Radius of less than 70 inches:						
10 gallons or less	14	0.0747	14	0.0747	14	0.0747
Over 10 to 14 gallons	14	0.0747	14	0.0747	13	0.0897
Over 14 to 18 gallons	14	0.0747	13	0.0897	12	0.1046
Over 18 gallons	13	0.0897	12	0.1046	11	0.1196
Maximum Shell Radius of 70 inches or more, but less than 90 inches:						
10 gallons or less	14	0.0747	14	0.0747	13	0.0897
Over 10 to 14 gallons	14	0.0747	13	0.0897	12	0.1046
Over 14 to 18 gallons	13	0.0897	12	0.1046	11	0.1196
Over 18 gallons	12	0.1046	11	0.1196	10	0.1345
Maximum Shell Radius of 90 inches or more, but less than 125 inches:						
10 gallons or less	14	0.0747	13	0.0897	12	0.1046
Over 10 to 14 gallons	13	0.0897	12	0.1046	11	0.1196
Over 14 to 18 gallons	12	0.1046	11	0.1196	10	0.1345
Over 18 gallons	11	0.1196	10	0.1345	9	0.1495
Maximum Shell Radius of 125 inches or more:						
10 gallons or less	13	0.0897	12	0.1046	11	0.1196
Over 10 to 14 gallons	12	0.1046	11	0.1196	10	0.1345
Over 14 to 18 gallons	11	0.1196	10	0.1345	9	0.1495
Over 18 gallons	10	0.1345	9	0.1495	8	0.1685

*Thickness of exterior head sheets shall never be less than the maximum requirements for shell sheets in any specific unit.
**Manufacturers Standard Gauge and approximate equivalent thickness in decimals of inch.

27.3(2) Cargo tanks constructed of low alloy low carbon (high tensile) steel.

a. Material. All sheets for such cargo tanks shall be of low alloy, low carbon steel, commonly known as high tensile, meeting the following requirements:

Yield point, minimum—50,000 pounds per square inch.

Ultimate strength, minimum—65,000 pounds per square inch.

Minimum elongation, standard two-inch sample—twenty percent.

b. Thickness of sheets. The minimum thickness of tank sheets shall be limited by the volume capacity of the tank, expressed in terms of gallons per inch of length; and by the distance between bulkheads, baffles, or other shell stiffeners, as well as by the radius of shell curvature in the case of shell sheets; as follows:

LOW ALLOY LOW CARBON (HIGH TENSILE) STEEL
MINIMUM THICKNESS OF HEAD, BULKHEAD AND BAFFLE SHEETS*

Heads, Bulkheads, or Baffles Volume Capacity of Tank in Gallons per Inch of Length Manufacturers Gauge No.	(Dished, Corrugated, Reinforced or Rolled)			
	10 or Less	Over 10 to 14	Over 14 to 18	Over 18
	15	14	13	12

*Thickness of exterior head sheets shall never be less than the maximum requirements for shell sheets in any specific unit.

MINIMUM THICKNESS OF SHELL SHEETS
LOW ALLOY LOW CARBON (HIGH TENSILE) STEEL

	Distance Between Attachments of Bulkheads, Baffles Or Other Shell Stiffeners					
		36 inches or less	Over 36 inches to 54 inches	Over 54 inches		
	Gauge*	Approx. Thick. Decimals of in.	Gauge*	Approx. Thick. Decimals of in.	Gauge*	Approx. Thick. Decimals of in.
Maximum Shell Radius of less than 70 inches:						
10 gallons or less	16	0.0588	16	0.0588	15	0.0673
Over 10 to 14 gallons	16	0.0588	15	0.0673	14	0.0747
Over 14 to 18 gallons	15	0.0673	14	0.0747	13	0.0897
Over 18 gallons	14	0.0747	13	0.0897	12	0.1046
Maximum Shell Radius of 70 inches or more, but less than 90 inches:						
10 gallons or less	16	0.0588	15	0.0673	14	0.0747
Over 10 to 14 gallons	15	0.0673	14	0.0747	13	0.0897
Over 14 to 18 gallons	14	0.0747	13	0.0897	12	0.1046
Over 18 gallons	13	0.0897	12	0.1046	11	0.1196
Maximum Shell Radius of Gauge*						
90 inches or more, but less than 125 inches:						
10 gallons or less	15	0.0673	14	0.0747	13	0.0897
Over 10 to 14 gallons	14	0.0747	13	0.0897	12	0.1046
Over 14 to 18 gallons	13	0.0897	12	0.1046	11	0.1196
Over 18 gallons	12	0.1046	11	0.1196	10	0.1345
Maximum Shell Radius of 125 inches or more:						
10 gallons or less	14	0.0747	13	0.0897	12	0.1046
Over 10 to 14 gallons	13	0.0897	12	0.1046	11	0.1196
Over 14 to 18 gallons	12	0.1046	11	0.1196	10	0.1345
Over 18 gallons	11	0.1196	10	0.1345	9	0.1495

*Manufacturers Standard Gauge and approximate equivalent thickness in decimals of inch.

27.3(3) Cargo tanks constructed of aluminum alloys for high strength welded construction.

a. Material. All sheets for shell, heads and bulkheads of such cargo tanks shall be of aluminum alloys GR20A (5052 commercial designation), GR40A (5154 commercial designation) or GM40A (5086 commercial designa-

tion), conforming to American Society for Testing Materials Specification B178-54T.

All heads, bulkheads, and baffles and other shell stiffeners may use 0 temper (annealed) or stronger tempers. All shells shall be of H32 temper or H34 temper, except that when shell thicknesses of 0.250 inch or thicker are used, the H112 temper is additionally permitted.

b. *Thickness of sheets.* The minimum nominal thicknesses of tank sheets shall be limited by the volume capacity of the tank, expressed in terms of gallons per inch of length;

and by the distance between bulkheads, baffles, or other shell stiffeners, as well as by the radius of shell curvature in the case of shell sheets as follows:

MINIMUM THICKNESS OF HEAD, BULKHEAD AND BAFFLE SHEETS*
ALUMINUM ALLOYS GR20A, GR40A, AND GM40A

Heads, Bulkheads, or Baffles Volume Capacity of Tank in Gallons per Inch of Length Thickness in Decimals of Inches	(Dished, Corrugated, Reinforced or Rolled)			
	10 or Less	Over 10 to 14	Over 14 to 18	Over 18
	.096	.109	.130	.151

*Thickness of exterior head sheets shall never be less than the maximum requirements for shell sheets.

MINIMUM THICKNESS OF SHELL SHEETS
ALUMINUM ALLOYS GR20A, GR40A AND GM40A

Volume Capacity Of Tank In Gallons Per Inch Of Length	Distance Between Attachments of Bulkheads, Baffles or Other Shell Stiffeners		
	36 inches or less	Over 36 inches to 54 inches	Over 54 inches
Inch Decimal Thickness for Maximum Shell Radius of Less than 70 inches:			
10 gallons or less.....	.087	.087	.096
Over 10 to 14 gallons.....	.087	.096	.109
Over 14 to 18 gallons.....	.096	.109	.130
Over 18 gallons.....	.109	.130	.151
Inch Decimal Thickness for Maximum Shell Radius of 70 inches or more, but less than 90 inches:			
10 gallons or less.....	.087	.096	.109
Over 10 to 14 gallons.....	.096	.109	.130
Over 14 to 18 gallons.....	.109	.130	.151
Over 18 gallons.....	.130	.151	.173
Inch Decimal Thickness for Maximum Shell Radius of 90 inches or more, but less than 125 inches:			
10 gallons or less.....	.096	.109	.130
Over 10 to 14 gallons.....	.109	.130	.151
Over 14 to 18 gallons.....	.130	.151	.173
Over 18 gallons.....	.151	.173	.194
Inch Decimal Thickness for Maximum Shell Radius of 125 inches or More:			
10 gallons or less.....	.109	.130	.151
Over 10 to 14 gallons.....	.130	.151	.173
Over 14 to 18 gallons.....	.151	.173	.194
Over 18 gallons.....	.173	.194	.216

27.3(4) *Joints.*

a. Joints shall be made in accordance with recognized good practice and the efficiency of any joint shall be not less than eighty-five percent of that of the adjacent metal in the tank. Low alloy low carbon (high tensile) steel sheets, however, shall be joined by fusion welding.

b. Mild steel and low alloy low carbon steel may be used in the construction of a single tank, provided each material, where

used, shall comply with the minimum requirements of its respective specifications for that section of the tank.

c. In cargo tanks constructed of aluminum alloys, all joints in and to tank shells, heads and bulkheads shall be welded. All welded aluminum joints shall be made in accordance with recognized good practice, and the efficiency of a joint shall not be less than eighty-five percent of the annealed properties of the material in question. Aluminum alloys

for high strength welded construction shall be joined by an inert gas arc welding process using filler metals R-GR40A, E-GR40A (5154 alloy) and R-GM50A, E-GM50A (5356 alloy) as conforming to American Society of Testing Materials Specification No. B285-54T (American Welding Society Specification No. A5, 10-54T).

27.3(5) Test. At the time of manufacture every cargo tank shall be tested by a minimum air or hydrostatic pressure of three pounds per square inch applied to each compartment, or to the whole tank if it be not divided into compartments. Such pressure shall be maintained for a period of at least five minutes, during which, if the test is by air pressure, the entire exterior surface of all the joints shall be coated with a solution of soap and water, heavy oil, or other material suitable for the purpose, foaming or bubbling of which will indicate the presence of leaks. Hydrostatic pressure, if used, shall be gauged at the top of the tank; and the tank shall be inspected at the joints for the issuance of liquid to indicate leaks. Any leakage discovered by either of the methods above described, or by any other method shall be deemed as evidence of failure to meet the requirements of this subrule.

27.3(6) Tank outlets. Outlets shall be substantially made and so attached to the tank.

27.3(7) Bulkheads and baffles.

a. Every cargo tank having a total capacity in excess of 3000 gallons and used for the distribution of class I and class II flammable liquids to automotive and marine service stations to which the public is invited shall be divided into compartments, no one of which shall exceed 2500 gallons. A designed tolerance of ten percent shall be allowed for capacities of individual compartments or tanks.

b. Except as provided in 27.3(7)"a", bulkheads or compartments shall not be required in any cargo tank used for transportation service, regardless of total capacity, which, when loaded and transporting its cargo over streets and highways will contain not less than eighty percent of the total tank capacity and will discharge its entire contents at one unloading point. As to tank vehicles operating from, to, or within areas requiring seasonal reduction in size of cargo, the eighty percent requirements shall be waived during the period in which such restrictions are in effect.

c. Every cargo tank, and every compartment over ninety inches in length, shall be provided with baffles, the number of which shall be such that the linear distance between any two adjacent baffles, or between any tank head or bulkhead and the baffles nearest it, shall in no case exceed sixty inches.

d. The cross sectional area of each baffle shall be not less than eighty percent of the cross sectional area of the tank and the thickness of such baffle shall be not less than that required for heads and bulkheads of the cargo tank in which installed.

e. Cargo tanks with compartments carrying flammable liquids of different classes shall be provided with an air space between compartments and this air space shall be equipped and maintained with drainage facilities operative at all times.

27.3(8) Vents. Each cargo tank or compartment shall be provided with a vacuum and pressure operated vent with a minimum effective opening of 0.44 square inch, and shall also be provided with an emergency venting facility so constructed as to provide a minimum free-venting opening having a net area in square inches equal to 1.25 plus 0.0025 times the capacity of the cargo tank or compartment in gallons. If the emergency venting facility operates in response to elevated temperatures, the critical temperature for such operation shall not exceed 200° F.

27.3(9) Valve and faucet connections. Draw-off valves and faucets shall have discharge ends threaded, or they shall be designed so as to permit being tightly connected to hose extending to fill pipe.

27.3(10) Emergency-discharge control.

a. Every outlet from any cargo tank any compartment of which has a capacity in excess of 500 gallons, if used for transportation of class I or II flammable liquids, shall be equipped with a reliable and efficient shut-off valve located inside the shell; or in the sump when it is an integral part of the shell; and designed so that the valve must be kept closed except during loading and unloading operations.

b. The operating mechanism for the valve shall be provided with a secondary control, remote from the fill openings and discharge faucets, for use in the event of accidents or fire during delivery operations.

c. The control mechanism shall be provided with a fusible section which will permit valves to close automatically in case of fire.

d. In every case there shall be provided, between the shut-off valve seat and discharge faucet, a shear section which will break under strain unless the discharge piping is so arranged as to afford the same protection and leave the shut-off valve seat intact.

27.4(101)T.III Tank-vehicle chassis, assembly and appurtenances.

27.4(1) Tires. All tank motor vehicles shall be equipped with rubber tires on all wheels.

27.4(2) Assembly. Every cargo tank shall be adequately supported upon and securely attached to or be a part of the tank vehicle upon which it is carried.

27.4(3) Static protection.

a. Cargo tanks, and vehicle chassis, shall be electrically bonded.

b. Provision shall be made in the tank structure of the vehicle for the bonding of vehicle to the fill pipe during truck loading operations.

c. All hoses used on transports (4000-gallon capacity or larger) for unloading class I or II liquids shall be wire-filled.

d. Drag chains and straps, formerly specified for the purpose of eliminating static charges, have been shown to be ineffective and their elimination is recommended.

27.4(4) Protection against collision. Draw-off valves or faucets projecting beyond the frame at the rear of a tank vehicle shall be adequately protected against collision by bumpers or similar means.

27.4(5) Lighting. No lighting device other than electric lights shall be used on tank vehicles. Lighting circuits shall have suitable over-current protection (fuses or automatic circuit breakers). The wiring shall have sufficient carrying capacity and mechanical strength, and shall be secured, insulated, and protected against physical damage, in keeping with recognized good practice.

27.4(6) Fuel system.

a. Fuel tanks shall be so designed, constructed and installed as to present no unusual hazard, and shall be so arranged as to vent during filling operations and permit drainage without removal from their mountings.

b. All portions of the fuel-feed system, including carburetor, pumps, and all auxiliary mechanisms and connections shall be constructed and installed in a workmanlike manner, and so constructed and located as to minimize the fire hazard with no readily combustible materials used therein, and shall, except for Diesel fuel connections, be well separated from the engine exhaust system. A pressure-release device shall be provided where necessary. The fuel-feed lines shall be made of materials not adversely affected by the fuel to be used or by other materials likely to be encountered, of adequate strength for their purpose, well secured to avoid chafing or undue vibration, having a readily accessible and reliable shut-off valve or stop-cock. Joints depending upon solder for mechanical strength and liquid tightness shall not be used in the fuel system at or near the engine, or its accessories, unless the solder has a melting point of not less than 340° F., or unless a self-closing, thermally controlled valve set to operate at not exceeding 300° F., or other equivalent automatic device, shall be installed in the fuel line on the fuel-tank side of such joint.

27.4(7) Exhaust system.

a. The exhaust system, including muffler (or silencer) and exhaust line shall have ample clearance from the fuel system and combustible materials, and shall not be exposed to leakage or spillage of product or accumulations of grease, oil or gasoline.

b. The exhaust system, including all units, shall be constructed and installed in a workmanlike manner. A muffler (or silencer) cutout shall not be used.

27.4(8) Semitrailers.

a. Semitrailers shall be firmly and securely attached to the vehicle drawing them, in a manner conforming with recognized good practice.

b. Each semitrailer, shall be equipped with reliable brakes on all wheels, and adequate provision shall be made for their efficient operation from the driver's seat of the vehicle drawing the trailer, or semitrailer.

c. Trailer connections shall be such as to prevent the towed vehicle from whipping or swerving from side to side dangerously or unreasonably and shall cause the trailer to follow substantially in the path of the towing vehicle.

27.4(9) Fire extinguishers. Each tank vehicle shall be provided with at least one portable fire extinguisher having at least a 12-B, C rating or when more than one is provided, each extinguisher shall have at least a 6-B rating. Fire extinguishers shall be kept in good condition at all times, and they shall be located in an accessible place on each tank vehicle.

27.4(10) Auxiliary internal combustion engines. Internal combustion engines, other than those providing propulsive power, installed or carried upon a tank vehicle transporting classes I and II flammable liquids for the purpose of providing power for the operation of pumps or other devices, shall meet the following requirements:

a. The engine air intake shall be equipped with an effective flame arrester, or an air cleaner having effective flame arrester characteristics, substantially installed and capable of preventing emission of flame from the intake side of the engine in event of back-firing.

b. The fuel system shall be so located or constructed as to minimize the fire hazard. If the fuel tank is located above or immediately adjacent to the engine, suitable shielding shall be provided to prevent spillage during the filling operation, or leakage from the tank or fuel system, from coming in contact with the engine or any parts of the ignition and exhaust systems. All parts of the fuel system shall be constructed and installed in a workmanlike manner.

c. Pumps and other appurtenances carrying or containing flammable liquids shall be so located in relation to the engine that spillage or leakage from such parts shall be prevented from coming in contact with the engine or any parts of the ignition and exhaust system, or adequate shielding shall be provided to attain the same purpose. The engine cooling fan shall be so positioned, rotated or shielded as to minimize the possibility of drawing flammable vapors toward the engine.

d. When the engine is located in a position where spillage from the cargo tank or its appurtenances or from side racks might constitute a hazard, suitable shielding shall be provided to prevent such spillage from contacting the engine or engine exhaust system

and for draining such spillage away from the vicinity of the engine.

e. Where the engine is carried within an enclosed space adequate provision shall be made for air circulation at all times, to prevent accumulation of explosive vapors and to avoid overheating.

f. The exhaust system shall be substantially constructed and installed and free from leaks. The exhaust line and muffler shall have adequate clearance from combustible materials and the exhaust gases shall be discharged at a location which will not constitute a hazard. When engines are carried as in 27.4(10) "e", the exhaust gases shall be discharged outside of each such closed space.

g. The ignition wiring shall be substantially installed with firm connections, and spark plug and all other terminals shall be suitably insulated, to prevent sparking in event of contact with conductive materials. The ignition switch shall be of the enclosed type.

27.4(11) Auxiliary electric generators and motors. Electrical equipment, installed or carried upon a tank vehicle transporting classes I and II flammable liquids, for the operation of pumps or other devices used for the handling of product and operating product handling accessories shall meet the following requirements:

a. Electric generators driven from a power take-off connected to the vehicle transmission or to an auxiliary transmission, or by an auxiliary internal combustion engine, shall be of the explosion-proof type.

b. Electric motors shall be of the explosion-proof type.

c. Wiring shall be adequate and substantially installed with all terminals firmly connected and insulated to prevent sparking from vibration or in event of contact with conductive materials. Wires shall have oil-proof insulation. If overload protection is provided it shall be of the explosion-proof type. All switches or other sparking devices shall be of the explosion-proof type and all conduit entrances shall be sealed.

d. Where the generator or motor is located within an enclosed space adequate provision shall be made for air circulation to prevent overheating and possible accumulation of explosive vapors.

e. Electrical equipment and wiring shall be located so as to prevent contact with spillage from cargo tank or side racks or suitable shielding shall be provided to attain equivalent protection.

27.5(101) T.III Operation of tank vehicles.

27.5(1) Proper repair. Tank vehicles shall not be operated unless they are in proper repair, devoid of accumulation of grease, oil or other flammables, and free of leaks.

27.5(2) Filling and discharging tank vehicles.

a. The driver, operator or attendant of any tank vehicle shall not leave the vehicle while it is being filled or discharged. Delivery hose, when attached to a tank vehicle shall be considered to be a part of the tank vehicle.

b. Motors of tank trucks or tractors shall be shut down during making and breaking hose connections. If loading or unloading is done without the use of a power pump, the tank truck or tractor motor shall be shut down throughout such operations.

c. The cargo tank shall be bonded to the fill-pipe when loading. The bond-wire connection shall be made prior to opening the dome covers. It shall be maintained in place during the entire filling operation and the dome covers shall be securely closed before the bond-wire is disconnected from the cargo tank.

d. No external bond-wire connection nor bond-wires integral with a hose are needed for the unloading of flammable liquids into underground tanks.

e. No cargo tank or compartment thereof used for the transportation of any flammable liquid shall be loaded liquid full. The vacant space (outage) in a cargo tank or compartment thereof used in the transportation of flammable liquids shall be not less than one percent; sufficient space (outage) shall be left vacant in every case to prevent leakage from or distortion of such tank or compartment by expansion of the contents due to rise in temperature in transit.

27.5(3) No smoking. Smoking by tank vehicle drivers, helpers, repairmen, or other personnel is prohibited while they are driving, making deliveries, filling, or making any repairs to tank vehicles.

27.5(4) Protection against intermixing.

a. *Conversion.* No cargo tank compartment, the last preceding use of which was for class I or II flammable liquid, shall be used for class III flammable liquid until all class I or II liquid has been completely drained from the compartment and from all piping and any pump, meter or hose connected thereto. If the compartment or any connected piping, pump, meter or hose will not drain completely, the class I or II liquid shall be completely removed by other means.

b. *Separation.* If class I or II flammable liquid and class III flammable liquid are to be delivered by pump, meter or hose from different compartments of one cargo-tank load, separate withdrawal or metering equipment, whatever it may be, from the point where it is attached to the compartment outlet pipe to and including the dispensing nozzle or connection, shall be provided for class I or II flammable liquid; and separate equipment, as aforesaid, shall be provided for class III flammable liquid. *Exception:* Tank vehicles manufactured prior to the effective date of this standard may be continued in use without

being so equipped if (1) lines into the common outlets or to common manifolds are provided with valves which will permit only one compartment at a time to be emptied; and (2) the common outlet, pump, meter or hose, following use for class I or II liquid, shall be cleared as required in 27.5 (4) "a" before being used for class III flammable liquid.

[Filed January 15, 1960]

CHAPTER 28

NURSING HOMES AND CUSTODIAL HOMES

28.1(135C)T.III Definitions.

28.1(1) *Nursing home.* "Nursing home" shall mean the same as defined in chapter 135C of the Code.

28.1(2) *Custodial home.* "Custodial home" shall mean the same as defined in chapter 135C of the Code.

28.1(3) *Ambulatory.* "Ambulatory" when used in these standards shall mean a person who, without the aid of another, is physically and mentally capable of walking a normal path to safety including the ascent and descent of stairs.

28.1(4) *Bed patient.* "Bed patient" shall mean a person who is not ambulatory as defined in these standards.

28.1(5) *Patient.* "Patient" shall mean any individual cared for in a nursing home, even though such person does not require nursing care.

28.1(6) *Resident.* "Resident" shall mean any individual cared for in a custodial home.

28.1(7) *Approved.* "Approved" when used in these standards shall mean acceptable to the state fire marshal.

a. "Approved standards" shall mean any standard or code prepared and adopted by any nationally recognized association.

b. "Approved equipment and material" shall mean any equipment or material tested and listed by a nationally recognized testing laboratory.

c. "Approved" is defined as being acceptable to the state fire marshal. Any equipment, device or procedure which bears the stamp of approval of or meets applicable standards prescribed by an organization of national reputation such as the Underwriters' Laboratories, Inc., Factory Mutual Laboratories, American Society for Testing Materials, National Board of Fire Underwriters, National Fire Protection Association, American Society of Mechanical Engineers or American Standards Association, which undertakes to test and approve or provide standards for equipment, devices or procedures of the nature prescribed in these regulations shall be deemed acceptable to the state fire marshal.

28.1(8) *Attic.* "Attic" when used in these standards shall mean the space between the

ceiling beams of the top habitable story and the roof rafters.

28.1(9) *Automatic.* "Automatic" as applied to a door, window or other protection for an opening shall mean that such door, window or other protection is so constructed and arranged that if open it will close when subjected to a predetermined temperature or rate of temperature rise.

28.1(10) *Automatic sprinkler system.* "Automatic sprinkler system" shall mean an arrangement of piping and sprinklers designed to operate automatically by the heat of fire and to discharge water upon the fire, according to the standards of the national board of fire underwriters.

28.1(11) *Basement.* "Basement" when used in these standards shall mean that portion of the building partly underground, but having less than half its clear height below the average grade of the adjoining ground.

28.1(12) *Cellar.* "Cellar" shall mean that portion of the building partly underground, having half or more than half of its clear height below the average grade of the adjoining ground.

28.1(13) *Combustible.* "Combustible" shall mean that which is easily ignited.

28.1(14) *Combustible or hazardous storage area or room.* "Combustible or hazardous storage area or room" shall mean those areas containing heating apparatus and boiler rooms, basements or attics used for the storage of combustible material, flammable liquids, workrooms such as carpenter shops, paint shops and upholstery shops, central storerooms such as furniture, mattresses and miscellaneous storage, and similar occupancies intended to contain combustible materials which will either be easily ignited, burn with an intense flame or result in the production of dense smoke and fumes.

28.1(15) *Exit.* "Exit" shall mean the exit doorway or doorways, or such doorways together with connecting hallways or stairways, either interior or exterior, or fire escapes, designed to provide means by which individuals may proceed safely from a room or space to a street or to an open space which provides safe access to a street.

28.1(16) *Fire door.* "Fire door" shall mean a door and its assembly, so constructed and assembled in place as to give protection against the passage of fire, equal to surrounding construction.

28.1(17) *Fire partition.* "Fire partition" shall mean a partition which subdivides a story of a building to provide an area of refuge or to restrict the spread of fire.

28.1(18) *Fire-resistance.* "Fire-resistance" shall mean that property of materials or assemblies which prevents or retards the passage of excessive heat, hot gases, or flames under

condition of use. "Fire-resistant" and "fire-resistive" shall mean the same as "fire-resistance."

28.1(19) Fire-resistance rating. "Fire-resistance rating" shall mean the time in hours or fractions thereof that materials or their assemblies will resist fire exposure as determined by fire tests conducted in compliance with approved standards.

28.1(20) Fire wall. "Fire wall" shall mean a wall of brick or reinforced concrete having adequate fire-resistance and structural stability under fire conditions to accomplish the purpose of completely subdividing a building or of completely separating adjoining buildings to resist the spread of fire. A fire wall shall extend continuously through all stories from foundation to or above the roof.

28.1(21) Flammable liquid. "Flammable liquid" shall mean any liquid which is governed by the rules and regulations promulgated by the state fire marshal under the state of Iowa laws governing the handling, storage and transportation of petroleum and petroleum products.

28.1(22) Local fire alarm system. "Local fire alarm system" shall mean a local system of electrically supervised devices, the signals of which are transmitted to one or more places in the premises covered, primarily for the notification of occupants. Such a system may also include automatic or manual transmission of alarms, or trouble signals or both, to a fire station or fire brigade and may also include supervisory service as well as alarm service.

28.1(23) Automatic fire alarm system. "Automatic fire alarm system" shall mean a system which automatically detects a fire condition and actuates a fire alarm signal device.

28.1(24) Manual fire alarm system. "Manual fire alarm system" shall mean a system which is not an automatic fire alarm system.

28.1(25) Means of egress. "Means of egress" shall have the same meaning as "exit" as defined in these rules.

28.1(26) New homes. "New homes" shall include new construction, additions to existing licensed homes and existing buildings converted to nursing or custodial homes.

28.1(27) Smoke barrier. "Smoke barrier" shall mean a partition with a fire-resistance rating of not less than one hour, equipped with a door and jamb of the same rating and hung so as to be reasonably smoke and gastight when closed. The door shall be not less than forty-four inches wide and shall not be fastened in an open position by a device which will require more than one movement of normal strength to swing such door to a closed position. Such barrier shall be located to provide ample area of refuge on each side of such partition or barrier for all occupants served by the barrier. The barrier may have wired-glass

panels, each not to exceed five square feet. The wire-glass shall be standard clear wire-glass.

28.1(28) Sprinklered. "Sprinklered" shall mean to be completely protected by an approved system of automatic sprinklers installed and maintained in accordance with approved standards.

28.1(29) Story. "Story" shall mean that part of a building comprised between a floor and the floor or roof next above and shall apply to the basement and other floor areas below. The first floor shall be that story which is of such height above grade that it does not come within the definition of a basement or shall be that story located immediately above a basement.

28.1(30) Fire-resistive construction. "Fire-resistive construction" shall mean all structural members including walls, columns, piers, beams, girders, joists, trusses, floors and roofs shall be of approved noncombustible material.

28.1(31) Ordinary construction. "Ordinary construction" shall mean that type of construction having exterior walls of noncombustible material, such as brick or cement block, and other structural members including floors, roofs, beams, girders and joists are wholly or partly of wood or other combustible material.

28.1(32) Wood frame construction. "Wood frame construction" shall mean that type of construction in which the structural members are wholly or partly of wood or other combustible material and the construction does not qualify as ordinary construction.

28.2(135C)T.III Classifications.

28.2(1) Class 1A shall include one to four patients or residents in ordinary or frame construction buildings.

28.2(2) Class 2A shall include four to twenty-one patients or residents in ordinary or frame construction buildings.

28.2(3) Class 3A shall include more than twenty patients or residents in ordinary or frame construction buildings.

28.2(4) Class 1B shall include one to four patients or residents in fire-resistive construction buildings.

28.2(5) Class 2B shall include four to twenty-one patients or residents in fire-resistive construction buildings.

28.2(6) Class 3B shall include more than twenty patients or residents in fire-resistive construction buildings.

28.3(135C)T.III Existing nursing and custodial homes.

28.3(1) Height. Class 1A, 2A and 3A patients or residents shall not be housed above the second floor. Class 1B, 2B and 3B patients or residents, no limit.

28.3(2) Floor areas. All unsprinklered floors above the first, having a maximum occupancy above thirty persons, shall be divided into two sections by a fire wall or fire partition with ample room on each side for the total number of beds on each floor. Doors in the fire wall shall be of the type of construction that will furnish fire and smoke protection equal to the building construction.

28.3(3) Exit details.

a. Exits shall be of the following types or combinations thereof:

- (1) Horizontal exits.
- (2) Doors leading directly outside the buildings (without stairs).
- (3) Ramps.
- (4) Stairways.
- (5) Seven-foot spiral slides.

b. At least two exits of the above types, remote from each other, shall be provided for every floor or section of the building. At least one exit in every floor or section shall be of type 2, 3 or 4 as listed above. Exterior fire escape stairs may be accepted by the enforcing authority as a second means of exit.

c. At least one required exit from each floor above or below the first floor shall lead directly, or through an enclosed corridor, to the outside. A second or third required exit, where a more direct exit is impracticable, may lead to a first floor lobby having ample and direct exits to the outside.

d. Exits shall be of such number and so located that the distance of travel from the door of any occupied room to an exit from that floor shall not exceed fifty feet in an unsprinklered building nor seventy-five feet in a sprinklered building.

e. Exit doors shall not be locked against the egress by bolts, key locks, hooks or padlocks. A latch type lock is permissible that locks against outside entrance.

28.3(4) Construction and arrangement. All stairs, ramps or other ways of exit for areas shall be of such width and so arranged as to avoid any obstruction to the convenient removal of nonambulatory persons by carrying them on stretchers or on mattresses serving as stretchers. A standard forty-four inch wide stairway or ramp is the minimum recommended. A person on a thirty-nine inch wide mattress may be carried through a forty-inch doorway. Where persons are to be carried on mattresses or stretchers, extra space may be needed to make turns at stair landings.

28.3(5) Access.

a. Each occupied room shall have at least one doorway opening directly to the outside, or to a corridor leading directly or by a stairway or ramp to the outside, or to an adjacent room which has such access to the outside.

b. Doors serving as exits, or parts of exits shall be at least thirty-six inches wide, except that existing room doors not less than

thirty inches wide may be accepted by the enforcing authority.

c. Corridors and passageways to be used as a means of exit, or part of a means of exit, shall be at least forty-four inches wide.

d. Corridors and passageways to be used as a means of exit, or part of a means of exit, shall be unobstructed and shall not lead through any room or space used for a purpose that may obstruct free passage. Corridors and passageways which lead to the outside from any required stairway shall be enclosed as required for stairways.

e. All rooms must be equipped with a door. Divided doors shall be of such type that when the upper half is closed, the lower section shall close.

28.3(6) Protection of vertical openings.

a. Interior stairways shall be protected by complete enclosures with walls having fire-resistance rating appropriate to the type of building construction to protect the stairway as a means of exit and to prevent the spread of fire or smoke up the stairway from floor to floor, except that where a standard stairway enclosure is impracticable, partitioning with similar materials to cut off the stairway at floor levels may be accepted.

b. All doorways in stairway enclosures or partitions shall be provided with approved self-closing fire doors, except that no such doors shall be required for doorways leading directly outside the buildings.

c. Vertical openings other than stairways shall be protected as required above for stairways, except that automatic sprinkler protection may be accepted in lieu of enclosure.

28.3(7) Automatic sprinklers.

a. Where automatic sprinkler systems are installed to meet the requirements of this subrule, they shall be approved standard systems with water-flow alarm, protecting the entire building, except that where a single automatic sprinkler is installed for protection of a vertical opening, such as a laundry chute, or for protection of small hazardous areas such as a closet used for combustible storage, such a single sprinkler may be connected to the domestic water supply system. Where public water supplies are lacking or are inadequate for an automatic sprinkler system, a pressure tank system may be used. Open or unheated porches and unoccupied attic areas may be exempted from sprinkler protection in class 3A homes, 28.2(135C)T.III.

b. All homes of ordinary construction equipped with automatic sprinkler protection, and meeting all requirements of this section governing existing nursing homes, shall be excepted from the requirements of 28.1(3)"a".

c. Homes of class 3A, 28.2(135C)T.III, shall be equipped with automatic sprinkler systems two years from the effective date of these rules.

d. Existing three-story frame nursing homes, presently using third floors, may con-

tinue operation provided they are automatically sprinkler protected in accordance with the underwriter's standards and that third floor occupancy is not in violation of state law or city ordinance.

28.3(8) Fire detection systems.

a. Where fire detection systems are installed to meet the requirement of this standard, they shall be approved electrically supervised systems protecting the entire building, including unoccupied spaces such as attics. Where fixed temperature devices are used, they shall be constructed to operate at 165° F. or less, except that in spaces where high temperature is normal, devices having a higher operating point may be used. Operation of a thermostatic device shall cause an alarm which is audible throughout the building, or, where advisable because of the type of occupancy, the system may be so arranged that the initial alarm signal will sound only at some central point where twenty-four hour service is maintained.

b. There shall be an automatic fire detection system in all homes except where there is a sprinkler system and class 1A and class 1B homes, 28.2(135C)T.III.

c. Homes of class 1A and class 1B, 28.2(135C)T.III, shall have an outside means of communication, such as a telephone.

28.3(9) Fire extinguishers.

a. Approved type fire extinguishers shall be provided on each floor, so located that a person will not have to travel more than seventy-five feet from any point to reach the nearest extinguisher. An additional extinguisher shall be provided in, or adjacent to, each kitchen or basement storage room.

b. Type and number of portable fire extinguishers shall be determined by the state fire marshal. The confirmation of compliance with the above requirements shall be by the local authority having jurisdiction.

28.3(10) Heating. Heating shall be by a central system supplying steam, hot water or hot air, except that existing space heaters may continue to be used where approved as to type and installation by the enforcing official. All furnace rooms shall be supplied with outside air sufficient for proper combustion. All furnaces and other fired units shall be vented by suitably constructed and protected smoke pipes and chimneys. All furnaces and other fired units shall be separated from combustible surfaces by sufficient air space, the application of noncombustible insulation, or both. Portable heaters, except electric heaters in bathrooms, shall not be used.

28.4(135C)T.III Equipment and operational features for existing and new nursing and custodial homes.

28.4(1) Attendants, evacuation plan.

a. Every nursing and custodial home shall have at least one attendant on duty, awake and dressed therein at all times, and,

in addition, one stand-by attendant within hearing distance and available for emergency service. These attendants shall be at least eighteen years of age and capable of performing the required duties of evacuation. No person other than the management or a person under management control shall be considered as an attendant.

b. The above paragraph shall not apply to homes of class 1A and class 1B, 28.2(135C), T.III, and shall apply in all others except where there are less than ten patients.

c. Every nursing and custodial home shall formulate a plan for the protection of all persons in the event of fire and for their evacuation to areas of refuge and from the building when necessary. All employees shall be instructed and kept informed respecting their duties under the plan.

d. Every mattress shall be provided with strong handles so that it may serve as a stretcher when necessary for evacuation or shall be equipped with other approved carrying device.

28.4(2) Smoking. Smoking may be permitted in nursing and custodial homes only where proper facilities are provided. Smoking shall not be permitted in sleeping quarters or dormitories, except at such times as supervision is provided and upon recommendation of attending physician.

28.4(3) Signs and lighting.

a. Signs bearing the word "EXIT" in plainly legible block letters shall be placed at each exit opening, except at doors directly from rooms to exit corridors or passageways and except at doors leading obviously to the outside from the entrance floor. Additional signs shall be placed in corridors and passageways wherever necessary to indicate the direction of exit. Letters of signs shall be at least six inches high, except that the letters of internally illuminated exit signs may be not less than four and one-half inches high. All exit and directional signs shall be maintained clearly legible by electric illumination or other acceptable means when natural light fails.

b. All stairways and other ways of exit and the corridors or passageways appurtenant thereto shall be properly illuminated at all times to facilitate egress in accordance with the requirements for exit lighting.

28.4(4) Combustible contents.

a. All combustible decorative and acoustical material including textile floor coverings and curtains located in corridors, patient rooms, passageways or stairway enclosures and in lobbies or other rooms or spaces for use by occupants or visitors, shall be rendered and maintained flame-resistant.

b. Fresh cut flowers and decorative greens, as well as living vegetation, may be used for decoration, except those containing pitch or resin.

c. This shall not apply to homes of class 1A and class 1B, 28.2(135C)T.III.

d. Fiber base, acoustical ceiling treatment or wallboard shall not be installed in any nursing and custodial home after the effective date of these rules.

28.4(5) Occupancy restrictions.

a. Sleeping rooms or dormitories shall not be located in cellars.

b. Occupancies not under the control of, or not necessary to, the administration of a nursing and custodial home, are prohibited therein with the exception of the residence of the owner or manager.

c. The above shall apply to existing or new nursing and custodial homes, all classes.

28.4(6) Maintenance.

a. Regular and proper maintenance of electric service, heating plants, alarm systems, sprinkler systems, fire doors and exit facilities shall be a requisite for nursing and custodial homes of all classes.

b. Storerooms shall be maintained in a neat and proper manner at all times.

c. Excessive storage of combustible materials such as papers, cartons, magazines, paints, sprays, old clothing, furniture and similar materials shall be prohibited at all times in nursing and custodial homes.

d. The above shall apply to both existing and new nursing and custodial homes.

28.5(135C)T.III New nursing and custodial homes.

28.5(1) Regulation.

a. New nursing and custodial homes shall be those constructed after the effective date of this regulation.

b. It shall also include homes contemplated for use as a nursing or custodial home that are to be remodeled or additions to present homes where the addition is to provide rooms for more than four patients.

c. Homes of class 1A, 28.2(135C)T.III, will be excepted from the above.

28.5(2) Construction. All new construction shall be in accordance with the applicable provisions in the following subparagraphs. The recommendations follow nationally recognized technical engineering authorities. The references are taken from the National Building code recommendations by the National Board of Fire Underwriters and the United States Department of Health, Education and Welfare.

a. Fire-resistive construction—no limits to height and area of building.

1. Columns and piers shall have a fire-resistive rating not less than three hours.

2. Floors shall have a fire-resistive rating of two hours.

3. Roofs shall have a fire-resistive rating of not less than 1½ hours.

4. Beams, girders and trusses shall have a fire-resistive rating of two hours.

5. Walls bearing exterior and interior portions shall have a fire-resistive rating of three hours.

6. Partitions shall have a fire-resistive rating of two hours.

b. Noncombustible construction—limited to two stories except when protected with an approved sprinkler system.

1. General—all structural including walls, partitions, columns, piers, beams, girders, joists, trusses, floors and roofs shall be of approved noncombustible material not less than one hour fire-resistive rating.

2. Exterior walls shall have a fire-resistive rating of two hours.

c. One-story buildings shall be constructed of not less than one-hour fire-resistant construction throughout except that boiler rooms, heating rooms and combustible storage rooms shall be of two-hour fire-resistant construction. Protected wood frame construction when roof and floor construction and their supports have one-hour fire-resistance and stairways and other openings through floors are enclosed with partitions having one-hour fire-resistance, shall be acceptable as one-story buildings for nursing and custodial homes.

d. Other types of construction—not permitted.

e. In determining the height of a building in stories, the basement shall be considered as a story if the floor of the first story is more than eight feet six inches above grade level at any point next to the building. Service and entrance areaways encompassing not more than ten percent of the perimeter of the building may be disregarded. An attic or roof space not used for storage and not occupied shall not be considered as a story.

28.5(3) Division of floor areas.

a. Each floor occupied by thirty or more persons shall be divided into at least two fire sections by partitions having at least a one-hour fire-resistance rating. At least thirty square feet per person shall be provided on each side for the total number of persons on the floor. Partitions shall have at least a one-hour fire-resistance rating. They shall extend to the roof in attics where the ceiling below has less than a two-hour fire-resistance rating. Openings in such partitions shall occur only in public rooms or corridors and shall be protected by approved fire doors so installed that they may normally be kept in open position but will close automatically in case of fire or may be released manually to self-closing action.

b. No more than 150 feet of corridor without such partitions, as defined in 28.5(3)“a” shall be permitted. The enforcing authority may require additional partitions where he finds them necessary for the safety of the occupants.

28.5(4) Exit details.

a. Exits shall be of the following types, or combinations thereof.

1. Horizontal exits.

2. Doors leading directly outside the buildings (without stairs).

3. Ramps.
4. Stairways.
5. Seven-foot spiral slides.

b. At least two exits of the above types, remote from each other, shall be provided for every floor or section of the building. At least one exit in every floor or section shall be of type 2, 3 or 4 as listed in 28.5(4)"a". Exterior fire escape stairs may be accepted by the enforcing authority as a second means of exit.

c. At least one required exit from each floor above or below the first floor shall lead directly, or through an enclosed corridor, to the outside. A second or third required exit, where a more direct exit is impracticable, may lead to a first floor lobby having ample and direct exits to the outside.

d. Exits shall be of such number and so located that the distance of travel from the door of any occupied room to an exit from that floor shall not exceed 100 feet in an un-sprinklered building nor 150 feet in a sprinklered building.

e. Exit doors shall not be locked against the egress by bolts, key locks, hooks or padlocks. A latch type lock is permissible that locks against outside entrance.

28.5(5) *Construction and arrangement.*

All stairs, ramps or other ways of exit for areas shall be of such width and so arranged as to avoid any obstruction to the convenient removal of nonambulatory persons by carrying them on stretchers or on mattresses serving as stretchers. A standard forty-four inch wide stairway or ramp is the minimum recommended. A person on a thirty-nine inch wide mattress may be carried through a forty-inch doorway. Where persons are to be carried on mattresses or stretchers, extra space may be needed to make turns at stair landings.

28.5(6) *Access.*

a. Each occupied room shall have at least one doorway opening directly to the outside, or to a corridor leading directly or by a stairway or ramp to the outside, or to an adjacent room which has such access to the outside.

b. Corridors and passageways to be used as a means of exit, or part of a means of exit, shall be at least forty-four inches wide.

c. Corridors and passageways to be used as a means of exit, or part of a means of exit, shall be unobstructed and shall not lead through any room or space used for a purpose that may obstruct free passage. Corridors and passageways which lead to the outside from any required stairway shall be enclosed as required for stairways.

d. All rooms must be equipped with a door. Divided doors shall be of such type that when the upper half is closed, the lower section shall close.

28.5(7) *Doors.*

a. Outside landings to which exit doors discharge shall be located at points where the finish grade is not more than five risers higher or lower than the exit doorsill.

b. Wherever possible, outside stairs should be eliminated in favor of ramps, particularly in one-story buildings so that beds on casters can be rolled quickly to the outside without removing the patients from the beds.

c. No locks shall be installed on patient room doors.

d. All doorways to patient-occupied spaces and all doorways between the patient-occupied spaces and the required exits shall be at least forty-four inches in clear width to permit the transportation of patients on beds, cots, litters or mattresses from one section to another or to the outside.

e. Doors to any room accommodating more than four persons shall swing with exit travel.

28.5(8) *Protection of vertical openings.*

a. Interior stairways shall be protected by complete enclosures with walls having fire-resistance rating appropriate to the type of building construction to protect the stairway as a means of exit and to prevent the spread of fire or smoke up the stairway from floor to floor, except that where a standard stairway enclosure is impracticable, partitioning with similar materials to cut off the stairway at floor levels may be accepted.

b. All doorways in stairway enclosures or partitions shall be provided with approved self-closing fire doors, except that no such doors shall be required for doorways leading directly outside the building.

c. Vertical openings other than stairways shall be protected as required above for stairways, except that automatic sprinkler protection may be accepted in lieu of enclosure.

28.5(9) *Automatic sprinklers.* Where automatic sprinkler systems are installed to meet the requirements of this standard, they shall be approved standard systems with water-flow alarm, protecting the entire building, except that where a single automatic sprinkler is installed for protection of a vertical opening, such as a laundry chute, or for protection of small hazardous areas such as a closet used for combustible storage, such a single sprinkler may be connected to the domestic water supply system. Where public water supplies are lacking or are inadequate for an automatic sprinkler system, a pressure tank may be used.

28.5(10) *Fire detection systems.*

a. Where fire detection systems are installed to meet the requirement of this standard, they shall be approved electrically supervised systems protecting the entire building, including unoccupied spaces such as attics. Where fixed temperature devices are used, they shall be constructed to operate at 165° F. or less, except that in spaces where high temperature is normal, devices having a higher operating point may be used. Operation of a thermostatic device shall cause an alarm which is audible throughout the building or, where advisable because of the type of occupancy, the system may be so arranged that the initial

alarm signal will sound only at some central point where twenty-four hour service is maintained.

b. There shall be an automatic fire detection system in all homes except where there is a sprinkler system and class 1A and class 1B homes, 28.2(135C)T.III.

c. Homes of class 1A and class 1B, 28.2(135C)T.III, shall have an outside means of communication such as a telephone.

28.5(11) Fire extinguishers.

a. Approved type fire extinguishers shall be provided on each floor, so located that a person will not have to travel more than seventy-five feet from any point to reach the nearest extinguisher. An additional extinguisher shall be provided in, or adjacent to, each kitchen or basement storage room.

b. Type and number of portable fire extinguishers shall be determined by the state fire marshal. The confirmation of compliance with the above requirements shall be by the local authority having jurisdiction.

28.5(12) Heating. Heating shall be a central system supplying steam, hot water or hot air at new nursing and custodial homes, except class 3B homes, 28.2(135C)T.III, shall have either steam or hot water systems. All furnace rooms shall be supplied with outside air sufficient for proper combustion. All furnaces and other fire units shall be vented by suitably constructed and protected smoke pipes and chimneys. Portable heaters, except electric heaters in bathrooms, shall not be used. [Filed September 17, 1957; amended October 9, 1957 and January 15, 1960]

CHAPTER 29

FIRE SAFETY RULES FOR SCHOOL AND COLLEGE BUILDINGS

29.1(100)T.III General requirements.

29.1(1) Every building or structure, new or old, designed for school or college occupancy, shall be provided with exits sufficient to permit the prompt escape of students and teachers in case of fire or other emergency. The design of exits and other safeguards shall be such that reliance for safety to life in case of fire or other emergencies will not depend solely on any single safeguard; additional safeguards shall be provided for life safety in case any single safeguard is ineffective due to some human or mechanical failure.

29.1(2) Every building or structure shall be so constructed, arranged, equipped, maintained and operated as to avoid undue danger to lives and safety of its occupants from fire, smoke, fumes or resulting panic during the period of time reasonably necessary for escape from the building or structure in case of fire or other emergency.

29.1(3) Exits shall be provided of kinds, numbers, location and capacity appropriate to

the individual building or structure, with due regard to the character of the occupancy, the number of persons exposed, the fire protection available, and the height and type of construction of the building or structure, to afford all occupants convenient facilities for escape.

29.1(4) Fire escapes, where specified, shall be installed and the design and use of materials shall be in accordance with chapter 103 of the Code, and the fire escape regulations set forth in these rules.

29.1(5) All changes or alterations to be made in any school or college building, whether new or existing, shall conform with the applicable provisions of these rules and before any construction of new or additional installation is undertaken, drawings and specifications thereof made to scale shall be submitted to the state fire marshal, in duplicate, for his approval. Within a reasonable time (ten days) after receipt of the drawings and specifications, the state fire marshal shall cause the same to be examined and if he finds that they conform as submitted or modified with the requirements of this division, he shall forthwith signify his approval of the application either by endorsement thereon or by attachment thereto, retain one copy for his files and return to the applicant the other copy plus any additional copies submitted by the applicant. If the drawings and specifications do not conform with applicable requirements of this division as aforesaid, he shall within the time aforesaid notify the applicant accordingly.

29.1(6) Each school building of two or more classrooms, not having a principal or superintendent on duty, shall have a teacher appointed by the school officials to supervise school fire drills and be in charge in event of fire or other emergency. This subrule shall not apply to college buildings.

29.1(7) Compliance with these rules shall not be construed as eliminating or reducing the necessity for other provisions for fire safety of persons using a school or college building under normal occupancy conditions nor shall any provision of these rules be construed as requiring or permitting any conditions that may be hazardous under normal occupancy conditions.

29.1(8) In existing multistoried buildings where there is substantial compliance with these rules, the state fire marshal may waive specific requirements of these rules. Such waivers shall be granted only after taking into consideration: The age of the regular occupants of the building, the use to which the building is put, the potential hazard to occupants occasioned by noncompliance, the design of the building and difficulty of installing the fire safety device, the excessive cost of full compliance and availability of funds therefore.

29.2(100)T.III Definitions.

29.2(1) *School and college buildings.* For the purpose of these rules, school and col-

lege buildings are those used as a gathering of groups of persons for the purpose of instruction and they are distinguished from other types of occupancies in that the same occupants are regularly present and are subject to discipline and control.

29.2(2) Elementary school. An elementary school shall be those buildings that include kindergarten through sixth grade (K-6).

29.2(3) Classroom. Any room originally designed, or later suitably adapted to accommodate some form of group instruction on a day by day basis, excluding such areas as auditoriums, gymnasiums, lunch rooms, libraries, multipurpose rooms, study halls and similar areas. Storage and other service areas opening into and serving as an adjunct to a particular classroom shall be considered as part of that classroom area.

29.2(4) Exit. An exit is a way to get from the interior of a building or structure to the open air outside at the ground level. It may comprise vertical and horizontal means of travel such as doorways, stairways, ramps, corridors, passageways and fire escapes. An exit begins at any doorway or other point from which occupants may proceed to the exterior of the building or structure with reasonable safety under emergency conditions.

29.2(5) Story. If the finished floor level directly above a basement or cellar is more than six feet above grade, such basement or cellar shall be considered a story.

29.2(6) Basement. A basement is a story partly underground but having at least one-half of its height measuring from floor to ceiling above the grade level of the adjoining ground.

29.2(7) New construction. Those buildings designed and constructed after the effective date of these rules.

29.2(8) Approved. Approved is defined as being acceptable to the state fire marshal. Any equipment or device which bears the seal of the Underwriters' Laboratories, Inc., Factory Mutual Laboratory, American Standards Association, or the American Gas Association shall be accepted as approved. In the case of standards for safety, the criteria shall be the National Fire codes as published by the National Fire Protection Association.

29.2(9) Fire alarm system. A fire alarm system shall be an electrically energized system approved by the state fire marshal, using component parts approved by the Underwriters' Laboratories, Inc., and providing facilities of a type to warn the occupants of an existence of fire so that they may escape or to facilitate the orderly conduct of fire exit drills.

29.2(10) Interior finish material. Interior finish material shall be classified in accordance with the method of tests of surface burning characteristics of building material National Fire Protection Association Standard No. 255, Test Methods, Surface Burning—Building Ma-

terials, 1969. Classification of interior finish material shall be in accordance with tests made under conditions simulating actual installations, provided that the state fire marshal may by rule establish the classification of any material on which a rating by standard test is not available. Interior finish material shall be grouped in the following classes in accordance with their flame spread and related characteristics:

- Class A. Interior finish flame spread 0-25.
- Class B. Interior finish flame spread 25-75.
- Class C. Interior finish flame spread 75-200.

29.2(11) Portable classroom building. A building designed and constructed so that it can be disassembled and transported to another location, or transported to another location without disassembling.

29.3(100) T.III Exits.

29.3(1) The population of all school buildings, for the purpose of determining the required exits and the required space for classroom use shall be determined on the following basis:

a. The square feet of floor space for persons in school buildings shall be one person for each forty square feet of gross area.

b. In the case of individual classrooms in schools, there shall be twenty square feet of classroom space for each student.

c. In gymnasiums and auditoriums, the capacity for seating shall be on the basis of six square feet net per person.

29.3(2) Exits shall be provided of kinds, numbers, location and capacity appropriate to the individual building.

29.3(3) Exits shall be so arranged and maintained as to provide free and unobstructed egress from all parts of every building or structure at all times when the building or structure is occupied. No locks or fasteners to prevent free escape from the inside of any building shall be installed.

29.3(4) Exits shall be clearly visible or routes to reach them shall be conspicuously indicated in such manner that every occupant of every educational building who is physically and mentally capable will readily know the direction of the escape from any point and each path of escape in its entirety shall be so arranged or marked that the way to a place of safety outside is unmistakable.

29.3(5) In all school buildings where artificial illumination is needed, electric exit signs or directional indicators shall be installed and adequate lighting provided for all corridors and passageways.

29.3(6) Where additional outside stairs or fire escapes are required by law, they shall be class B, double width (forty-four inches), and shall extend to the ground. Platforms for outside stairs or fire escapes shall have a minimum dimension of forty-four inches. Outside stairs and fire escapes shall be constructed in

accordance with the state law and regulations. Fire escapes shall not be permitted on new construction.

29.3(7) There shall be a minimum of two means of exit remote from each other from each floor of every school building. The traveled distance from any point to an exit shall not exceed 150 feet measured along the line of travel. In sprinklered buildings, the distance may be increased to 200 feet.

29.3(8) Every room with a capacity of fifty persons or over and having more than 1000 square feet of floor area shall have at least two doorways as remote from each other as practicable. Such doorways shall provide access to separate exits but may open onto a common corridor leading to separate exits in opposite directions.

29.3(9) Each elementary classroom shall have a secondary avenue of escape. This may be a door leading directly outside the building, a window [see 29.6(100)T.III], another door to an alternate corridor or a connecting door to a second room and thence to a secondary route of escape. In one-room classroom buildings the second exit shall be a door remote from the door used for normal entrance.

29.4(100)T.III Corridors.

29.4(1) Corridors used as means of access to exits, and corridors used for discharge from exits, shall provide a clearance of at least six feet in width, except in the case of buildings constructed prior to the effective date of this rule. Room doors or locker doors swinging into corridors shall not, at any point in the swing, reduce the clear effective width of the corridor to less than six feet, nor shall drinking fountains or other equipment, fixed or movable, be so placed as to obstruct the required minimum six-foot width.

29.4(2) *Open clothing storage in existing buildings.*

a. In existing buildings, where clothes are hung exposed in exit corridors, they shall be separated by partitions of sheet metal or equivalent material. Partitions shall be placed at six-foot intervals, be a minimum of eighteen inches in depth, extend at least one foot above the coat hooks and within eight inches of the floor.

b. Where open clothing is hung in exit corridors as described above, an automatic fire detection system shall be installed in the corridor. Sprinkler systems may be installed in lieu of the automatic detection system.

29.4(3) In new construction, open clothing storage shall not be permitted in exit corridors.

29.4(4) Except as permitted in 29.4(2), no combustible materials shall be stored in exit corridors.

29.4(5) The walls of corridors, used for exit facilities, shall be solid partitions of non-combustible finish material.

29.4(6) Where borrowed light panels of clear glass are used in exit corridors, the requirements of 29.18(100)T.III, of these rules, shall apply, except that clear glass windows in doors and transoms may be permitted in existing buildings when nonhazardous activities are carried on in the classroom.

29.4(7) Any single corridor or combination of corridors having an unbroken length of three hundred feet or more shall be divided into sections by smoke barriers consisting of smoke stop doors. Doors may be of ordinary solid wood type not less than 1¼ inches thick with clear wired glass panels. Such doors shall be of self-closing type and may be either single or double. They shall close the opening completely with only such clearance as is reasonably necessary for proper operation. Underwriters' Laboratories, Inc., listed electromagnetic holders may be used to hold these doors open provided they are hooked into the fire alarm system and a smoke detector is located at a strategic point near the doors.

29.4(8) There shall be no dead end in any corridor or hall more than twenty feet beyond the exit.

29.5(101)T.III Doors.

29.5(1) The entrance and exit doors of all school buildings and the doors of all classrooms shall open outward.

29.5(2) Doors shall be provided for main exit facilities leading to a platform connecting with either outside stairs or fire escapes. Doors leading to outside stairways or fire escapes shall have a minimum width of forty inches, except that on existing buildings where it is not practical to install a door of forty-inch width, a narrower door at least thirty inches in width may be installed.

29.5(3) The main exit and entrance doors and doors leading to fire escapes shall be equipped with panic type latches that cannot be locked against the exit.

29.5(4) Doors protecting stairways and doors leading to fire escapes or outside stairs may have wire-glass panes installed providing that the size of any single pane does not exceed 900 square inches.

29.5(5) Doors protecting vertical openings or fire doors installed where protection of hazardous rooms or areas are required shall be equipped with door closers and shall not be blocked open. Underwriters' Laboratories, Inc., listed electromagnetic holders may be used to hold these doors open provided they are hooked into the fire alarm system and a smoke detector is located at a strategic point near the doors.

29.5(6) Classroom doors.

a. Classroom doors, in new construction, shall be thirty-six inches wide. In existing buildings, doors of not less than thirty inches in width may be used. Doors must be a minimum of 1¼-inch solid core wood.

b. School buildings designed without doors to classrooms shall meet the requirements of 29.18(100)T.III.

29.5(7) Boiler, furnace or fuel-room doors, communicating to other building areas, shall be 1½-hour rated doors and frames, normally closed and hung to swing into the boiler room.

29.5(8) Doors to storage of combustibles off corridors shall be at least 1¾-inch solid core wood.

29.5(9) Doors from classrooms to corridors may have closeable louvers up to twenty-four inches above the floor. No other louvers or openable transoms shall be permitted in corridor partitions.

29.6(100)T.III Windows.

29.6(1) Windows below or within ten feet of an outside stairway or fire escape shall have panes of wire-glass.

29.6(2) Where a window is to be used as a secondary avenue of escape for elementary classrooms [see 29.3(100)T.III], it shall (without the use of tools) be easily opened from the inside to provide a clear opening of adequate size to use in an emergency. The bottom of this window shall not exceed thirty-four inches above the floor. In existing buildings, solid platforms or permanent steps may be permitted to meet the requirements of this sub-rule.

29.6(3) Double hung or hinged windows, having a clear opening equal to or greater than thirty inches by thirty inches, will meet the standards of 29.6(2), providing the other requirements of 29.6(2) are followed.

29.7(100)T.III Stairway enclosures and floor cutoffs.

29.7(1) In buildings of more than one story, stairs shall be enclosed with protected noncombustible construction except those in accordance with 29.7(2). Doors shall be 1¾-inch solid wood construction, or better, with wire-glass allowable.

29.7(2) In existing buildings of two stories with no basement, where such buildings are fire-resistive construction throughout, or fire-resistive first story and noncombustible or heavy timber second story, the stairs need not be enclosed, provided, (a) all exit-way finish is class A [flame spread rating not exceeding twenty-five], (b) no open storage of wardrobe, books, or furniture in exit ways or spaces common to them and (c) the stairs from the second floor lead directly to an outside door or vestibule leading to the outside of the building.

29.7(3) In new construction, the enclosures or protection of vertical openings shall be of the same type of construction as the surrounding material used for walls and partitions.

29.7(4) In existing buildings, the stairway enclosures or the protection of vertical

openings shall be the equivalent of wood stud-
ding with gypsum lath and plaster on both
sides. The doors shall be at least 1¾-inch solid
core wood doors. Maximum 900 square inch
glass panels allowable.

29.7(5) Stairways from boiler, furnace or
fuel rooms, communicating to other building
areas, shall be enclosed at top and bottom.
The entire stair enclosure shall be noncom-
bustible construction. The doors (other than
to the boiler room) may be 1¾-inch solid
wood with a maximum of 900 square inches of
wired glass allowable.

29.7(6) Except as provided elsewhere in
this section, interior stairways used as exits
shall be enclosed. The construction of the en-
closure shall be in accordance with the pro-
visions of 29.7(1).

29.7(7) Cutoffs between floors for stair-
ways not used as exit facilities shall use the
same type of construction as provided in
29.7(1).

29.8(100)T.III Interior finishes.

29.8(1) The interior finishes of all exit
corridors and passageways shall have class
A finish with a flame spread rating of not more
than twenty-five as determined by the "fire
tunnel tests" conducted by the Underwriters'
Laboratories, Inc., and assigned to materials
used for interior finish.

29.8(2) Whenever the fire marshal deter-
mines the fire hazard is great enough, class A
materials for room finishes shall be used in
science laboratories, shop areas, and such
other areas as the fire marshal shall designate,
in addition to those areas designated by
29.8(1).

29.8(3) In new construction, all interior
finishes shall be class C or better.

29.8(4) In existing buildings, ceiling
finishes not meeting the requirements of
29.8(1) or 29.8(3) may be corrected by the use
of a fire-retardant treatment provided how-
ever, if the material is combustible, it shall be
adhered to a continuous backing. The treat-
ment may be used in lieu of replacing the
finished material providing the material used
for treatment is listed by Underwriters' Labo-
ratories, Inc., and is applied in strict accord-
ance with the manufacturers' directions.

29.9(100)T.III Construction.

29.9(1) Types of construction as defined
in the National Fire Protection Association
Pamphlet No. 220, Standard Types of Building
Construction, 1961.

- a. Fire-resistive.
- b. Heavy timber.
- c. Noncombustible.
- d. Ordinary.
- e. Wood frame.

29.9(2) Noncombustible, ordinary or
wood frame construction may be modified by
using materials giving one-hour or greater
fire protection.

29.9(3) Types of construction permitted:

a. One-story buildings and one-story wings on multistory buildings may be any of the types designated in 29.9(1), or combinations thereof, but with ordinary or wood frame construction, protected materials shall be used.

b. One-room portable classroom buildings may be of lesser construction provided the interior finish of the classroom complies with 29.8(2) and 29.8(3) as use requires. Only noncombustible types of insulation may be used in such instances and each building shall be a minimum of twenty feet from another building.

c. Two-story buildings may be constructed of fire-resistive or protected noncombustible materials throughout, or the first story may be constructed of fire-resistive or protected noncombustible materials with the second story having either heavy timber or noncombustible materials.

d. Buildings of more than two stories shall be fire-resistive throughout.

29.9(4) Construction of the floor located above a basement shall be of fire-resistive or protected noncombustible materials.

29.9(5) Construction of the floor located above a crawl space or a pipe tunnel shall be of fire-resistive or noncombustible materials except in portable one-room classroom buildings an Underwriters' Laboratories, Inc., approved fire-retardant paint may be used.

29.9(6) Portable classroom buildings shall maintain a minimum of twenty feet distance from another building if complying with 29.9(3) "b". One-room portable classroom buildings located twenty feet or less between adjacent walls shall have not less than a one-hour, fire-rated separation. All portable classroom buildings with raised floors shall be skirted to the ground with material equal to the siding of the building.

29.9(7) Boiler rooms, furnace rooms or fuel rooms which have no stories located above may be constructed of fire-resistive, noncombustible, protected heavy timber or protected ordinary materials.

29.9(8) Boiler rooms, furnace rooms or fuel rooms with building above shall be of two-hour, fire-resistive construction.

29.10(100)T.III Fire alarm systems.

29.10(1) All schools having two or more classrooms shall be equipped with a fire alarm system. Alarm stations shall be provided on each floor and so located that the alarm station is not more than seventy-five feet from any classroom door within the building. Horns or bells that provide a distinctive sound different from other bell systems shall be provided that will give audible warning to all occupants of the building in case of a fire or other emergency. A test device shall be provided for the purpose of conducting fire drills and tests of the alarm system. One-room classroom buildings placed in a complex of other

classrooms shall be connected to the central alarm system.

29.10(2) Underwriters' Laboratories, Inc., equipment and component parts shall be used in the installation of the fire alarm system. The electrical energy for the fire alarm system shall be on a separate circuit and shall be taken off the utility service to the school building ahead of the entrance disconnect.

29.10(3) Whenever the fire marshal determines it advisable, he may require that the fire alarm system be extended or designed to provide automatic fire detection devices in unsupervised areas, boiler rooms, storerooms or shop areas.

29.11(101)T.III Electrical wiring.

29.11(1) The electrical wiring of any educational building shall have enough circuits to provide adequate service without the need of overfusing the circuits.

29.11(2) The electrical wiring and component parts shall be properly maintained and serviced so as to eliminate the overheating or shorting that could cause a fire.

29.11(3) In new construction, electrical wiring shall be in metal raceways.

29.11(4) All exit lights shall be connected ahead of the service disconnect.

29.12(101)T.III Heating equipment.

29.12(1) Heating equipment shall be installed, where applicable, in rooms constructed in accordance with 29.9(6) and 29.9(7).

29.12(2) Installation for any heating equipment shall be in accordance with the manufacturer's instruction and conditions of safe operation.

29.12(3) Acceptable evidence for complying with 29.12(2) shall be labeling or listed equipment by Underwriters' Laboratories, Inc., The American Gas Association Testing Laboratories, or approval of the state fire marshal.

29.12(4) Oil burning equipment shall be installed, maintained and operated in accordance with chapter 14 of the flammable liquid rules of the state of Iowa.

29.12(5) All gas burning equipment shall be installed and maintained in accordance with chapter 5 of the liquefied petroleum gas rules of the state of Iowa.

29.12(6) Floor-mounted flame heating equipment shall not be allowed to be installed in any classroom.

29.13(100)T.III Gas piping.

29.13(1) Gas piping shall be in accordance with chapter 5 of the liquefied petroleum gas rules of the state of Iowa.

29.13(2) All gas service lines into buildings shall be brought out of the ground before entering the building and shall be equipped with a shutoff valve outside the building.

29.13(3) Gas piping cannot run in enclosed space without proper venting.

29.14(100)T.III Fire extinguishers.

29.14(1) Each school building shall be equipped with fire extinguishers of a type, size and number approved by the state fire marshal.

29.14(2) National Fire Protection Association Standard No. 10, Installation of Portable Fire Extinguishers, 1969 is applicable. Vaporizing extinguishers containing halogenated hydrocarbon extinguishing agents shall not be approved.

29.15(100)T.III Basement, underground and windowless educational buildings.

29.15(1) In existing school buildings, basement classrooms may be used provided there is compliance with either paragraphs "a" and "d", or compliance with paragraphs "b", "c", "d", and "e" below.

a. Direct approved egress door from classrooms to the outside.

b. Classroom doors open into a corridor that leads directly outside.

c. Inside stairs from basement corridors, serving basement classrooms, shall not communicate with other stories above.

d. Doors from basement classroom corridors, to other areas of the basement, shall be at least 1½-inch solid core wood and equipped with door closers.

e. Buildings, unless of fire-resistive construction, using the basement area for classroom purposes, shall have sprinkler or automatic alarm systems in the entire basement area.

29.15(2) In new construction, basement rooms shall not be used for classroom purposes in elementary and junior high school buildings. This provision shall not apply to that portion of a building built on a sloping site which faces the lower grade level.

29.15(3) After October 17, 1969, in new construction only, underground or windowless educational buildings shall be provided with complete approved, automatic sprinkler systems.

29.15(4) After October 17, 1969, in new construction only, underground or windowless educational buildings shall have approved automatic smoke venting facilities in addition to automatic sprinkler protection.

29.15(5) After October 17, 1969, in new construction only, underground or windowless educational buildings for which no natural lighting is provided shall be provided with an approved type emergency exit lighting system.

29.15(6) After October 17, 1969, in new construction only, where required exit from underground structures involves upward travel, such as ascending stairs or ramp, such upward exits shall be cut off from main floor areas. If the area contains any combustible

contents or combustible interior finish, it shall be provided with outside vented smoke traps or other means to prevent the exit serving as flues for smoke from any fire in the area served by the exits, thereby making the exit impassable.

29.15(7) After October 17, 1969, in new construction only, every windowless building shall be provided with outside access panels on each floor level, designed for fire department access from ladders for purposes of ventilation and rescue of trapped occupants.

29.16(100)T.III Fire hazard safeguards in new and existing buildings.

29.16(1) Ventilating ducts discharging into attics of combustible construction shall be blocked off, protected with fire dampers or extended in a standard manner through the roof.

29.16(2) Cooking ranges and other cooking appliances in food service area kitchens shall be provided with ventilating hoods, grease filters, and shall be vented to the outside in an approved manner.

29.16(3) Discarded furniture, furnishings or other combustible material shall not be stored or allowed to accumulate in attics or concealed spaces. Designated storage space shall be provided for equipment that may be used periodically throughout the school year and necessary to the school operation or curriculum schedule.

29.16(4) Space under stairways in existing buildings shall not be used for storage unless the storage area is lined with material that will provide a one-hour, fire-resistant rating and provided with a tight-fitting door that has a comparable fire-resistant rating. Except when removing or storing stock, the door shall be kept closed and locked.

29.16(5) Waste paper baling and storage shall be in a room without ignition hazards and separated from other parts of the building by fire-resistant construction. Storage of paint products and flammable liquids shall be in a fire-resistive room or approved metal cabinet.

29.16(6) Decorative materials.

a. No furnishings, decorations, wall coverings, paints, etc., shall be used which are of a highly flammable character or which in the amounts used will endanger egress due to rapid spread of fire or formation of heavy smoke or toxic gases.

b. Highly flammable finishes such as lacquer and shellac are not permitted.

c. Draperies, curtains, loosely attached wall coverings, cloth hangings and similar materials shall be noncombustible or flame-proof in corridor exit ways and assembly occupancies. In other areas up to ten percent of the wall area may have combustible coverings and hangings.

29.16(7) Spray finishing operations shall not be conducted in a school building except

in a room designed for the purpose, protected with an approved automatic extinguishing system, and separated vertically and horizontally from such occupancies by construction having not less than two-hour fire resistance. National Fire Protection Association Standard No. 33, Spray Finishing, 1969, shall be applicable for construction and operation of all paint spray booths.

29.17(100)T.III Automatic sprinklers.

29.17(1) Where automatic sprinkler protection is provided, other requirements of these regulations may be modified to such extent as permitted by other provisions in this section.

29.17(2) Automatic sprinkler systems shall be of standard, approved types so installed and maintained as to provide complete coverage for all portions of the premises protected, except insofar as partial protection is specified in other paragraphs of this section.

29.17(3) Automatic sprinkler systems for schools shall be those designed to protect occupancy classifications that are considered light hazard occupancies.

29.17(4) Automatic sprinkler systems shall be provided with water flow alarm devices to give warning of operation of the sprinkler due to fire, and such alarm devices shall be installed so as to give warning throughout the entire school building. The sprinkler alarm detection may be connected to the fire alarm system required by state law.

29.17(5) Partial automatic sprinkler systems shall provide complete protection in the basement and other hazardous areas. Above the basement area, stairwells and corridors shall be sprinklered. Nonhazardous classrooms are not required to be sprinklered for partial systems.

29.17(6) Water supplies.

a. All automatic sprinklers installed in school buildings shall be provided with adequate and reliable water supplies.

b. Public water supplies for sprinkler systems in schools shall have a minimum of four-inch service pipe providing a minimum of 500 gallons of water per minute and shall have at least fifteen pounds pressure at the highest sprinkler head.

c. Where public water supply is not available and a pressure supply tank is used, the tank shall be a minimum of 6000 gallons capacity. The pressure tank shall operate at an air pressure adequate to discharge all of the water in the tank.

29.17(7) All automatic sprinkler systems required by these regulations shall be maintained in a reliable operating condition at all times and such periodic inspections and tests as are necessary shall be made to assure proper maintenance.

29.17(8) In existing buildings of ordinary or better construction, stairway enclosures will

not be required if protected by a partial or standard sprinkler system. Basement cutoffs of vertical openings will be required. This modification of open stairways is permitted only in buildings that do not exceed a basement and two full stories.

29.18(100)T.III Open plan buildings.

29.18(1) An "open plan building" is defined as any building where there are no permanent solid partitions between rooms or between rooms and corridors that are used for exit facilities.

29.18(2) Open plan buildings shall have enclosed stairways and any other vertical openings between floors protected in accordance with 29.17(1).

29.18(3) Open plan buildings shall not exceed 30,000 square feet in undivided area. Solid walls or smoke stop partitions shall be provided at intervals not to exceed 300 feet. Such walls or partitions shall have doors of a type that are at least 1¾-inch solid core wood doors and the partitions shall be the equivalent of one-hour construction.

29.18(4) Any cafeterias, gymnasiums or auditoriums shall be separated from the rest of the building by solid walls and no exits from other parts of the building shall require passing through such assembly areas.

29.18(5) Open plan buildings that do not have a direct exit door from each classroom to the outside shall be protected by a complete automatic fire detection system.

29.18(6) A sprinkler system may be installed in lieu of an automatic fire detection system in an open plan building.

29.18(7) Distance of travel to the nearest exit in an open plan building shall not exceed 100 feet from any point except that in a sprinklered building the distance may be increased to 150 feet.

[Filed June 22, 1962; amended April 6, 1965 and October 17, 1969]

CHAPTER 30

NEW COLLEGE BUILDINGS

30.1(100)T.III Exits.

30.1(1) Exits shall be provided of kinds, numbers, location and capacity appropriate to the individual building or structure, with due regard to the character of the occupancy, the number of persons exposed, the fire protection available, and the height and type of construction of the building or structure, to afford all occupants convenient facilities for escape.

30.1(2) The population of all college buildings, for the purpose of determining the required exits and the required space for classroom use, shall be determined on the following basis.

a. The square feet of floor space for per-

sons in college buildings shall be one person for each forty square feet of gross area.

b. In gymnasiums and auditoriums, the capacity for seating shall be on the basis of six square feet net per person.

30.1(3) Exits shall be so arranged and maintained as to provide free and unobstructed egress from all parts of every building or structure at all times when the building or structure is occupied. No locks or fasteners to prevent free escape from the inside of any building shall be installed.

30.1(4) Exits shall be clearly visible or routes to reach them shall be conspicuously indicated in such manner that every occupant of every educational building who is physically and mentally capable will readily know the direction of the escape from any point and each path of escape in its entirety shall be so arranged or marked that the way to a place of safety outside is unmistakable.

30.1(5) In all college buildings where artificial illumination is needed, electric exit signs or directional indicators shall be installed and adequate lighting provided for all corridors and passageways.

30.1(6) Fire escapes shall not be permitted on new construction.

30.1(7) There shall be a minimum of two means of exit remote from each other from each floor of every college building. The traveled distance from any point to an exit shall not exceed 150 feet measured along the line of travel. In sprinklered buildings, the distance may be increased to 200 feet.

30.1(8) Every room with a capacity of 50 persons or over and having more than 1000 square feet of floor area shall have at least two doorways as remote from each other as practicable. Such doorways shall provide access to separate exits but may open onto a common corridor leading to separate exits in opposite directions.

30.2(100)T.III Corridors.

30.2(1) Corridors used as means of access to exits, and corridors used for discharge from exits, shall provide a clearance of at least six feet in width. Room doors or locker doors swinging into corridors shall not, at any point in the swing, reduce the clear effective width of the corridor to less than six feet, nor shall drinking fountains or other equipment, fixed or movable, be so placed as to obstruct the required minimum six-foot width.

30.2(2) In new construction, open clothing storage shall not be permitted in exit corridors.

30.2(3) No combustible materials shall be stored in exit corridors.

30.2(4) The walls of corridors, used for exit facilities, shall be solid partitions of non-combustible finish material.

30.2(5) Where borrowed light panels of clear glass are used in exit corridors, the requirements of 30.15(100)T.III shall apply.

30.2(6) Any single corridor or combination of corridors having an unbroken length of 300 feet or more shall be divided into sections by smoke barriers consisting of smoke stop doors. Doors may be of ordinary solid wood type not less than 1¾-inches thick with clear wired glass panels. Such doors shall be of self-closing type and may be either single or double. They shall close the opening completely with only such clearance as is reasonably necessary for proper operation. Underwriters' Laboratories, Inc., listed electromagnetic holders may be used to hold these doors open provided they are hooked into the fire alarm system and a smoke detector is located at a strategic point near the doors.

30.2(7) There shall be no dead end in any corridor or hall more than twenty feet beyond the exit.

30.3(100)T.III Doors.

30.3(1) The entrance and exit doors of all college buildings and the doors of all classrooms shall open outward.

30.3(2) Doors protecting stairways may have wire glass panes installed providing that the size of any single pane does not exceed 900 square inches.

30.3(3) Doors protecting vertical openings or fire doors installed where protection of hazardous rooms or areas are required shall be equipped with door closers and shall not be blocked open. Underwriters' Laboratories, Inc., listed electromagnetic holders may be used to hold these doors open provided they are hooked into the fire alarm system and a smoke detector is located at a strategic point near the doors.

30.3(4) Classroom doors.

a. Classroom doors shall be thirty-six inches wide. Doors must be a minimum of 1¾-inch solid core wood.

b. College buildings designed without doors to classrooms shall meet the requirements of 30.15(100)T.III of these rules.

30.3(5) Boiler, furnace or fuel room doors, communicating to other building areas, shall be one and one-half hour rated doors and frames, normally closed and hung to swing into the boiler room.

30.3(6) Doors to storage of combustibles off corridors shall be at least 1¾-inch solid core wood.

30.3(7) Doors from classrooms to corridors may have closeable louvers up to twenty-four inches above the floor. No other louvers or openable transoms shall be permitted in corridor partitions.

30.4(100)T.III Stairway enclosures and floor cutoffs.

30.4(1) In new college buildings, stairs shall be enclosed with protected noncombustible construction. Doors shall be 1¾-inch solid wood construction, or better, with wire glass allowable.

30.4(2) In new construction, the enclosures or protection of vertical openings shall be of the same type of construction as the surrounding material used for walls and partitions.

30.4(3) Stairways from boiler, furnace or fuel rooms, communicating to other building areas, shall be enclosed at top and bottom. The entire stair enclosure shall be noncombustible construction. The doors (other than to the boiler room) may be 1¾-inch solid wood with a maximum of 900 square inches of wired glass allowable.

30.5(100)T.III Interior finishes.

30.5(1) The interior finishes of all exit corridors and passageways shall have class A finish with a flame spread rating of not more than twenty-five as determined by the "fire tunnel tests" conducted by the Underwriters' Laboratories, Inc., and assigned to materials used for interior finish.

30.5(2) Whenever the fire marshal determines the fire hazard is great enough, class A materials for room finishes shall be used in science laboratories, shop areas, and such other areas as the fire marshal shall designate, in addition to those areas designated by 30.5(1).

30.5(3) In new construction, all interior finishes shall be class C or better.

30.6(100)T.III Construction.

30.6(1) Types of construction as defined in the National Fire Protection Association Pamphlet No. 220, Standard Types of Building Construction, 1961:

- a. Fire-resistive.
- b. Heavy timber.
- c. Noncombustible.
- d. Ordinary.
- e. Wood frame.

30.6(2) Noncombustible, ordinary or wood frame construction may be modified by using materials giving one-hour or greater fire protection.

30.6(3) Types of construction permitted:

a. One-story buildings and one-story wings on multistory buildings may be any of the types designated in 30.6(1), or combinations thereof, but with ordinary or wood frame construction, protected materials shall be used.

b. One-room portable classroom buildings may be of lesser construction provided the interior finish of the classroom complies with subrules 29.8(2) and 29.8(3) as use requires. Only noncombustible types of insula-

tion may be used in such instances and each building shall be a minimum of twenty feet from another building.

c. Two-story buildings may be constructed of fire-resistive or protected noncombustible materials throughout, or the first story may be constructed of fire-resistive or protected noncombustible materials with the second story having either heavy timber or noncombustible materials.

d. Buildings of more than two stories shall be fire-resistive throughout.

30.6(4) Construction of the floor located above a basement shall be of fire-resistive or protected noncombustible materials.

30.6(5) Construction of the floor located above a crawl space or a pipe tunnel shall be of fire-resistive or noncombustible materials except in portable one-room classroom buildings an Underwriters' Laboratories, Inc., approved fire-retardant paint may be used.

30.6(6) Portable classroom buildings shall maintain a minimum of twenty feet distance from another building if complying with 29.9 (3)"b". One-room portable classroom buildings located twenty feet or less between adjacent walls shall have not less than a one-hour, fire-rated separation. All portable classroom buildings with raised floors shall be skirted to the ground with material equal to the siding of the building.

30.6(7) Boiler rooms, furnace rooms or fuel rooms which have no stories located above may be constructed of fire-resistive, noncombustible, protected heavy timber or protected ordinary materials.

30.6(8) Boiler rooms, furnace rooms or fuel rooms with building above shall be of two-hour, fire-resistive construction.

30.7(100)T.III Fire alarm systems.

30.7(1) All schools having two or more classrooms shall be equipped with a fire alarm system. Alarm stations shall be provided on each floor and so located that the alarm station is not more than seventy-five feet from any classroom door within the building. Horns or bells that provide a distinctive sound different from other bell systems shall be provided that will give audible warning to all occupants of the building in case of a fire or other emergency. A test device shall be provided for the purpose of conducting fire drills and tests of the alarm system. One-room classroom buildings placed in a complex of other classrooms shall be connected to the central alarm system.

30.7(2) Underwriters' laboratory equipment and component parts shall be used in the installation of the fire alarm system. The electrical energy for the fire alarm system shall be on a separate circuit and shall be taken off the utility service to the school building ahead of the entrance disconnect.

30.7(3) Whenever the fire marshal determines it advisable, he may require that the fire alarm system be extended or designed to provide automatic fire detection devices in unsupervised areas, boiler rooms, storerooms or shop areas.

30.8(100) T.III Electrical wiring.

30.8(1) The electrical wiring of any educational building shall have enough circuits to provide adequate service without the need of overfusing the circuits.

30.8(2) The electrical wiring and component parts shall be properly maintained and serviced so as to eliminate the overheating or shorting that could cause a fire.

30.8(3) In new construction, electrical wiring shall be in metal raceways.

30.8(4) All exit lights shall be connected ahead of the service disconnect.

30.9(100) T.III Heating equipment.

30.9(1) Heating equipment shall be installed, where applicable, in rooms constructed in accordance with 30.6(6) and 30.6(7).

30.9(2) Installation for any heating equipment shall be in accordance with the manufacturer's instruction and conditions of safe operation.

30.9(3) Acceptable evidence for complying with 30.9(2) shall be labeling or listed equipment by Underwriters' Laboratories, Inc., The American Gas Association Testing Laboratories, or approval of the state fire marshal.

30.9(4) Oil burning equipment shall be installed, maintained and operated in accordance with chapter 25, T.III.

30.9(5) All gas burning equipment shall be installed and maintained in accordance with chapter 5, T.III.

30.9(6) Floor-mounted flame heating equipment shall not be allowed to be installed in any classroom.

30.10(100) T.III Gas piping.

30.10(1) Gas piping shall be in accordance with chapter 5, T.III.

30.10(2) All gas service lines into buildings shall be brought out of the ground before entering the building and shall be equipped with a shutoff valve outside the building.

30.10(3) Gas piping cannot run in enclosed space without proper venting.

30.11(100) T.III Fire extinguishers.

30.11(1) Each college building shall be equipped with fire extinguishers of a type, size and number approved by the state fire marshal.

30.11(2) National Fire Protection Association Standard No. 10, Installation of Portable Fire Extinguishers, 1969 applicable. Vaporizing extinguishers containing halogenated

hydrocarbon extinguishing agents shall not be approved.

30.12(100) T.III Basement, underground and windowless educational buildings.

30.12(1) Basement classrooms may be used provided there is compliance with paragraph "a" or "b" and compliance with paragraphs "c" and "d" below.

a. Direct approved egress door from classrooms to the outside.

b. Classroom doors open into a corridor that leads directly outside.

c. Inside stairs from basement corridors, serving basement classrooms, shall not communicate with other stories above unless of fire-resistive construction.

d. Doors from basement classroom corridors, to other areas of the basement, shall be class B and equipped with door closers except that solid frames and solid core wood doors, not less than 1¾ inches thick, shall be permitted.

30.12(2) Underground or windowless educational buildings shall be provided with complete approved, automatic sprinkler systems.

30.12(3) Underground or windowless educational buildings shall have approved automatic smoke venting facilities in addition to automatic sprinkler protection.

30.12(4) Underground or windowless educational buildings for which no natural lighting is provided shall be provided with an approved type emergency exit lighting system.

30.12(5) Where required exit from underground structures involves upward travel, such as ascending stairs or ramp, such upward exits shall be cut off from main floor areas. If the area contains any combustible contents or combustible interior finish, it shall be provided with outside vented smoke traps or other means to prevent the exit serving as flues for smoke from any fire in the area served by the exits, thereby making the exit impassable.

30.12(6) Every windowless building shall be provided with outside access panels on each floor level, designed for fire department access from ladders for purposes of ventilation and rescue of trapped occupants.

30.13(100) T.III Fire hazard safeguards in new buildings.

30.13(1) Ventilating ducts discharging into attics of combustible construction shall be blocked off, protected with fire dampers or extended in a standard manner through the roof.

30.13(2) Cooking ranges and other cooking appliances in food service area kitchens shall be provided with ventilating hoods, grease filters, and shall be vented to the outside in an approved manner.

30.13(3) Discarded furniture, furnishings or other combustible material shall not be stored or allowed to accumulate in attics or concealed spaces. Designated storage space

shall be provided for equipment that may be used periodically throughout the school year and necessary to the college operation or curriculum schedule.

30.13(4) Storage facilities for materials and supplies shall be in storage rooms designed for this purpose.

30.13(5) Waste paper baling and storage shall be in a room without ignition hazards and separated from other parts of the building by fire-resistant construction.

30.13(6) Storage of paint products and flammable liquids shall be in a fire-resistive room or approved metal cabinet.

30.13(7) Decorative materials.

a. No furnishings, decorations, wall coverings, paints, etc., shall be used which are of a highly flammable character or which in the amounts used will endanger egress due to rapid spread of fire or formation of heavy smoke or toxic gases.

b. Highly flammable finishes such as lacquer and shellac are not permitted.

c. Draperies, curtains, loosely attached wall coverings, cloth hangings and similar materials shall be noncombustible or flameproof in corridor exit ways and assembly occupancies. In other areas up to ten percent of the wall area may have combustible coverings and hangings.

30.13(8) Spray finishing operations shall not be conducted in a school building except in a room designed for the purpose, protected with an approved automatic extinguishing system, and separated vertically and horizontally from such occupancies by construction having not less than two-hour fire resistance. National Fire Protection Association Standard No. 33, Spray Finishing, 1969, shall be applicable for construction and operation of all paint spray booths.

30.14(100)T.III Automatic sprinklers.

30.14(1) Automatic sprinkler systems shall be of standard, approved types so installed and maintained as to provide complete coverage for all portions of the premises protected, except insofar as partial protection is specified in other paragraphs of this section.

30.14(2) Automatic sprinkler systems for college buildings shall be those designed to protect occupancy classifications that are considered light hazard occupancies.

30.14(3) Automatic sprinkler systems shall be provided with water flow alarm devices to give warning of operation of the sprinkler due to fire, and such alarm devices shall be installed so as to give warning throughout the entire building. The sprinkler alarm detection may be connected to the fire alarm system required by state law.

30.14(4) Water supplies.

a. All automatic sprinklers installed in college buildings shall be provided with adequate and reliable water supplies.

b. Public water supplies for sprinkler systems in college buildings shall have a minimum of four-inch service pipe providing a minimum of 500 gallons of water per minute and shall have at least fifteen pounds pressure at the highest sprinkler head.

c. Where public water supply is not available and a pressure supply tank is used, the tank shall be a minimum of 6000 gallons capacity. The pressure tank shall operate at an air pressure adequate to discharge all of the water in the tank.

30.14(5) All automatic sprinkler systems required by these regulations shall be maintained in a reliable operating condition at all times and such periodic inspections and tests as are necessary shall be made to assure proper maintenance.

30.15(100)T.III Open plan buildings.

30.15(1) An "open plan building" is defined as any building where there are no permanent solid partitions between rooms or between rooms and corridors that are used for exit facilities.

30.15(2) Open plan building shall have enclosed stairways and any other vertical openings between floors protected in accordance with 30.4(1).

30.15(3) Open plan buildings shall not exceed 30,000 square feet in undivided area. Solid walls or smoke stop partitions shall be provided at intervals not to exceed 300 feet. Such walls or partitions shall have doors of a type that are at least 1¾-inch solid core wood doors and the partitions shall be the equivalent of one-hour construction.

30.15(4) Any cafeterias, gymnasiums or auditoriums shall be separated from the rest of the building by solid walls and no exits from other parts of the building shall require passing through such assembly areas.

30.15(5) Open plan buildings that do not have a direct exit door from each classroom to the outside shall be protected by a complete automatic fire detection system.

30.15(6) A sprinkler system may be installed in lieu of an automatic fire detection system in an open plan building.

30.15(7) Distance of travel to the nearest exit in an open plan building shall not exceed 100 feet from any point except that in a sprinklered building, the distance may be increased to 150 feet.

[Filed April 6, 1965; amended October 17, 1969]

CHAPTER 31

EXISTING COLLEGE BUILDINGS

31.1(100)T.III Exits.

31.1(1) Exits shall be provided of kinds, numbers, location and capacity appropriate to the individual building or structure, with due regard to the character of the occupancy, the

number of persons exposed, the fire protection available, and the height and type of construction of the building or structure, to afford all occupants convenient facilities for escape.

31.1(2) The population of all college buildings, for the purpose of determining the required exits and the required space for classroom use, shall be determined on the following basis.

a. The square feet of floor space for persons in college buildings shall be one person for each forty square feet of gross area.

b. In gymnasiums and auditoriums, the capacity for seating shall be on the basis of six square feet net per person.

31.1(3) Exits shall be so arranged and maintained as to provide free and unobstructed egress from all parts of every building or structure at all times when the building or structure is occupied. No locks or fasteners to prevent free escape from the inside of any building shall be installed.

31.1(4) Exits shall be clearly visible or routes to reach them shall be conspicuously indicated in such manner that every occupant of every educational building who is physically and mentally capable will readily know the direction of the escape from any point and each path of escape in its entirety shall be so arranged or marked that the way to a place of safety outside is unmistakable.

31.1(5) In all college buildings where artificial illumination is needed, electric exit signs or directional indicators shall be installed and adequate lighting provided for all corridors and passageways.

31.1(6) Where additional outside stairs or fire escapes are required by law, they shall be class B, double width forty-four inches, and shall extend to the ground. Platforms for outside stairs or fire escapes shall have a minimum dimension of forty-four inches. Outside stairs and fire escapes shall be constructed in accordance with the state law and regulations.

31.1(7) There shall be a minimum of two means of exit remote from each other from each floor of every college building. The traveled distance from any point to an exit shall not exceed 150 feet measured along the line of travel. In sprinklered buildings, the distance may be increased to 200 feet.

31.1(8) Every room with a capacity of 50 persons or over and having more than 1000 square feet of floor area shall have at least two doorways as remote from each other as practicable. Such doorways shall provide access to separate exits but may open onto a common corridor leading to separate exits in opposite directions.

31.1(9) In existing buildings where exits do not comply with the requirements of 31.1(100)T.III and in which hazardous conditions exist because of the number, width, construction or location of exits, the fire marshal may

order additional exits to assure adequate safety of the occupants but under no condition may outside fire escapes exceed fifty percent of the required stairs.

31.2(100)T.III Corridors.

31.2(1) Corridors used as means of access to exits, and corridors used for discharge from exits, shall provide a clearance of at least six feet in width, except in the case of buildings constructed prior to May 6, 1965. Room doors or locker doors swinging into corridors shall not, at any point in the swing, reduce the clear effective width of the corridor to less than six feet, nor shall drinking fountains or other equipment, fixed or movable, be so placed as to obstruct the required minimum six-foot width.

31.2(2) *Open clothing storage in existing buildings.*

a. In existing buildings, where clothes are hung exposed in exit corridors, they shall be separated by partitions of sheet metal or equivalent material. Partitions shall be placed at six-foot intervals, be a minimum of eighteen inches in depth, extend at least one foot above the coat hooks and within eight inches of the floor.

b. Where open clothing is hung in exit corridors as described above, an automatic fire detection system shall be installed in the corridor. Sprinkler systems may be installed in lieu of the automatic detection system.

31.2(3) Except as permitted in 31.2(2), no combustible materials shall be stored in exit corridors.

31.2(4) The walls of corridors, used for exit facilities, shall be solid partitions of non-combustible finish material.

31.2(5) Where borrowed light panels of clear glass are used in exit corridors, the requirements of 31.16(100)T.III, shall apply, except that clear glass windows in doors and transoms may be permitted in existing buildings when nonhazardous activities are carried on in the classroom.

31.2(6) Any single corridor or combination of corridors having an unbroken length of 300 feet or more shall be divided into sections by smoke barriers consisting of smoke stop doors. Doors may be of ordinary solid wood type not less than 1½ inches thick with clear wired glass panels. Such doors shall be of self-closing type and may be either single or double. They shall close the opening completely with only such clearance as is reasonably necessary for proper operation. Underwriters' Laboratories, Inc., listed electromagnetic holders may be used to hold these doors open provided they are hooked into the fire alarm system and a smoke detector is located at a strategic point near the doors.

31.2(7) There shall be no dead end in any corridor or hall more than twenty feet beyond the exit.

31.3(100)T.III Doors.

31.3(1) The entrance and exit doors of all college buildings and the doors of all classrooms shall open outward.

31.3(2) Doors shall be provided for main exit facilities leading to a platform connecting with either outside stairs or fire escapes. Doors leading to outside stairways or fire escapes shall have a minimum width of forty inches, except that on existing buildings where it is not practical to install a door of forty-inch width, a narrower door at least thirty inches in width may be installed.

31.3(3) The main exit and entrance doors and doors leading to fire escapes shall be equipped with a latching device that cannot be locked against the exit.

31.3(4) Doors protecting stairways and doors leading to fire escapes or outside stairs may have wire-glass panes installed providing that the size of any single pane does not exceed 900 square inches.

31.3(5) Doors protecting vertical openings or fire doors installed where protection of hazardous rooms or areas is required shall be equipped with door closers and shall not be blocked open. Underwriters' Laboratories, Inc., listed electromagnetic holders may be used to hold these doors open provided they are hooked into the fire alarm system and a smoke detector is located at a strategic point near the doors.

31.3(6) Classroom doors.

a. In existing buildings, doors of not less than thirty inches in width may be used. Doors must be a minimum of 1½-inch solid core wood.

b. Buildings designed without doors to classrooms shall meet the requirements of 31.16(100)T.III.

31.3(7) Boiler, furnace or fuel room doors, communicating to other building areas, shall be 1½-hour rated doors and frames, normally closed and hung to swing into the boiler room.

31.3(8) Doors to storage of combustibles off corridors shall be at least 1½-inch solid core wood.

31.3(9) Doors from classrooms to corridors may have closeable louvers up to twenty-four inches above the floor. No other louvers or openable transoms shall be permitted in corridor partitions.

31.4(100)T.III Windows. Windows below or within ten feet of an outside stairway or fire escape shall have panes of wire glass.

31.5(100)T.III Stairway enclosures and floor cutoffs.

31.5(1) In buildings of more than one story, stairs shall be enclosed with protected noncombustible construction except those in accordance with 31.5(2). Doors shall be 1½-

inch solid wood construction, or better, with wire glass allowable.

31.5(2) In existing buildings of two stories with no basement where such buildings are fire-resistive construction throughout, or fire-resistive first story and noncombustible or heavy timber second story, the stairs need not be enclosed, provided, (a) all exit-way finish is class A [flame spread rating not exceeding twenty-five], (b) no open storage of wardrobe, books or furniture in exit ways or spaces common to them and (c) providing these stairs from the second floor lead directly to an outside door or vestibule leading to the outside of the building.

31.5(3) In existing buildings, the stairway enclosures or the protection of vertical openings shall be the equivalent of wood studding with gypsum lath and plaster on both sides. The doors shall be at least 1½-inch solid core wood doors. Maximum 900 square-inch glass panels allowable.

31.5(4) Stairways from boiler, furnace or fuel rooms, communicating to other building areas, shall be enclosed at top and bottom. The entire stair enclosure shall be noncombustible construction. The doors (other than to the boiler room) may be 1½-inch solid wood with a maximum of 900 square inches of wired glass allowable.

31.5(5) Except as provided elsewhere in this rule, interior stairways used as exits shall be enclosed. The construction of the enclosure shall be in accordance with the provisions of 31.5(1).

31.5(6) Cutoffs between floors for stairways not used as exit facilities shall use the same type of construction as provided in 31.5(1).

31.5(7) Where existing buildings because of layout or construction make it impossible to comply with 31.5(100)T.III, the fire marshal shall make an analysis of the building and may then order remedial construction or installation of fire detection or equipment which will correct hazardous conditions.

31.6(100)T.III Interior finishes.

31.6(1) The interior finishes of all exit corridors and passageways shall have class A finish with a flame spread rating of not more than twenty-five as determined by the "fire tunnel tests" conducted by the Underwriters' Laboratories, Inc., and assigned to materials used for interior finish.

31.6(2) Whenever the fire marshal determines the fire hazard is great enough, class A materials for room finishes shall be used in science laboratories, shop areas, and such other areas as the fire marshal shall designate, in addition to those areas designated by 31.6(1).

31.7(100)T.III Construction. All additions to existing buildings shall comply with 30.6(100)T.III, 30.6(1)–30.6(7), inclusive.

31.8(100)T.III Fire alarm systems.

31.8(1) All schools having two or more classrooms shall be equipped with a fire alarm system. Alarm stations shall be provided on each floor and so located that the alarm station is not more than seventy-five feet from any classroom door within the building. Horns or bells that provide a distinctive sound different from other bell systems shall be provided that will give audible warning to all occupants of the building in case of a fire or other emergency. A test device shall be provided for the purpose of conducting fire drills and tests of the alarm system. One-room classroom buildings placed in a complex of other classrooms shall be connected to the central alarm system.

31.8(2) Underwriters' Laboratories, Inc., equipment and component parts shall be used in the installation of the fire alarm system. The electrical energy for the fire alarm system shall be on a separate circuit and shall be taken off the utility service to the school building ahead of the entrance disconnect.

31.8(3) Whenever the fire marshal determines it advisable, he may require that the fire alarm system be extended or designed to provide automatic fire detection devices in unsupervised areas, boiler rooms, storerooms or shop areas.

31.9(100)T.III Electrical wiring. Electrical service in existing buildings and all remodeling or additions to the electric service shall comply with 30.8(100)T.III.

31.10(100)T.III Heating equipment.

31.10(1) Heating equipment shall be installed, where applicable, in rooms constructed in accordance with 30.6(6) and 30.6(7).

31.10(2) Installation for any heating equipment shall be in accordance with the manufacturer's instruction and conditions of safe operation.

31.10(3) Acceptable evidence for complying with 31.10(2) shall be labeling or listed equipment by Underwriters' Laboratories, Inc., The American Gas Association Testing Laboratories, or approval of the state fire marshal.

31.10(4) Oil burning equipment shall be installed, maintained and operated in accordance with chapter 25, T.III.

31.10(5) All gas burning equipment shall be installed and maintained in accordance with chapter 5, T.III.

31.10(6) Floor-mounted flame heating equipment shall not be allowed to be installed in any classroom.

31.11(100)T.III Gas piping.

31.11(1) Gas piping shall be in accordance with chapter 5, T.III.

31.11(2) All gas service lines into buildings shall be brought out of the ground before

entering the building and shall be equipped with a shutoff valve outside the building.

31.11(3) Gas piping cannot run in enclosed space without proper venting.

31.12(100)T.III Fire extinguishers.

31.12(1) Each college building shall be equipped with fire extinguishers of a type, size and number approved by the state fire marshal.

31.12(2) National Fire Protection Association Standard No. 10, Installation of Portable Fire Extinguishers, 1969 applicable. Vaporizing extinguishers containing halogenated hydrocarbon extinguishing agents shall not be approved.

31.13(100)T.III Basements. In existing college buildings, basement classrooms may be used provided there is compliance with paragraph "1" or "2" and compliance with paragraphs "3", "4" and "5":

1. Direct approved egress door from classrooms to the outside.

2. Classroom doors open into a corridor that leads directly outside.

3. Inside stairs from basement corridors, serving basement classrooms, shall not communicate with other stories above unless of fire-resistive construction.

4. Doors from basement classroom corridors, to other areas of the basement, shall be class B and equipped with door closers except that solid frames and solid core wood doors, not less than 1¾ inches thick, shall be permitted.

5. Buildings, unless of fire-resistive construction, using the basement area for classroom purposes, shall have sprinkler or automatic alarm systems in the entire basement area.

31.14(100)T.III Fire hazard safeguards in existing buildings.

31.14(1) Ventilating ducts discharging into attics of combustible construction shall be blocked off, protected with fire dampers or extended in a standard manner through the roof.

31.14(2) Cooking ranges and other cooking appliances in food service area kitchens shall be provided with ventilating hoods, grease filters, and shall be vented to the outside in an approved manner.

31.14(3) Discarded furniture, furnishings or other combustible material shall not be stored or allowed to accumulate in attics or concealed spaces. Designated storage space shall be provided for equipment that may be used periodically throughout the school year and necessary to the college operation or curriculum schedule.

31.14(4) Space used for storage under stairways in existing buildings shall not be allowed unless the storage area is lined with material that will provide a one-hour, fire-resistant rating and provided with a tight-fitting door that has a comparable fire-resistant

rating. Except when removing or storing stock, the door shall be kept closed and locked.

31.14(5) Waste paper baling and storage shall be in a room without ignition hazards and separated from other parts of the building by fire-resistant construction.

31.14(6) Storage of paint products and flammable liquids shall be in a fire-resistive room or approved metal cabinet.

31.14(7) Decorative materials.

a. No furnishings, decorations, wall coverings, paints, etc., shall be used which are of a highly flammable character or which in amounts used will endanger egress due to rapid spread of fire or formation of heavy smoke or toxic gases.

b. Highly flammable finishes such as lacquer and shellac are not permitted.

c. Draperies, curtains, loosely attached wall coverings, cloth hangings and similar materials shall be noncombustible or flame-proof in corridor exit ways and assembly occupancies. In other areas up to ten percent of the wall area may have combustible coverings and hangings.

31.14(8) Spray finishing operations shall not be conducted in a school building except in a room designed for the purpose, protected with an approved automatic extinguishing system, and separated vertically and horizontally from such occupancies by construction having not less than two-hour fire resistance. National Fire Protection Association Standard No. 33, Spray Finishing, 1969, shall be applicable for construction and operation of all paint spray booths.

31.15(100) T.III Automatic sprinklers.

31.15(1) Subrules 31.15(2)–31.15(9), inclusive, shall apply, if upon inspection by the fire marshal a building or area is deemed hazardous for life safety and a sprinkler system installation is ordered.

31.15(2) Where automatic sprinkler protection is provided, other requirements of these rules may be modified to such extent as permitted by other provisions in 31.15(100) T.III.

31.15(3) Automatic sprinkler systems shall be of standard, approved types so installed and maintained as to provide complete coverage for all portions of the premises protected, except insofar as partial protection is specified in other subrules of 31.15(100) T.III.

31.15(4) Automatic sprinkler systems for college buildings shall be those designed to protect occupancy classifications that are considered light hazard occupancies.

31.15(5) Automatic sprinkler systems shall be provided with water flow alarm devices to give warning of operation of the sprinkler due to fire, and such alarm devices shall be installed so as to give warning throughout the entire building. The sprinkler alarm detection may be connected to the fire alarm system required by state law.

31.15(6) Partial automatic sprinkler systems shall provide complete protection in basement and other hazardous areas. Above the basement area, stairwells and corridors shall be sprinklered. Nonhazardous classrooms are not required to be sprinklered for partial systems.

31.15(7) Water supplies.

a. All automatic sprinklers installed in college buildings shall be provided with adequate and reliable water supplies.

b. Public water supplies for sprinkler systems in college buildings shall have a minimum of four-inch service pipe providing a minimum of 500 gallons of water per minute and shall have at least fifteen pounds pressure at the highest sprinkler head.

c. Where public water supply is not available and a pressure supply tank is used, the tank shall be a minimum of 6000 gallons capacity. The pressure tank shall operate at an air pressure adequate to discharge all of the water in the tank.

31.15(8) All automatic sprinkler systems required by these regulations shall be maintained in a reliable operating condition at all times and such periodic inspections and tests as are necessary shall be made to assure proper maintenance.

31.15(9) In existing buildings of ordinary or better construction, stairway enclosures will not be required if protected by a partial or standard sprinkler system. Basement cutoffs of vertical openings will be required. This modification of open stairways is permitted only in buildings that do not exceed a basement and two full stories.

31.16(100) T.III Open plan buildings.

31.16(1) In existing college buildings, where the design of the building lends itself to the classification of an open plan building, the requirements for fire safety of 31.15(2)–31.15(9), inclusive, shall apply.

31.16(2) This will include regulations for all buildings where there are no permanent solid partitions between rooms or between rooms and corridors that are used for exit facilities.

31.16(3) Open plan buildings shall have enclosed stairways and any other vertical openings between floors protected in accordance with 31.5(1).

31.16(4) Open plan buildings shall not exceed 30,000 square feet in undivided area. Solid walls or smoke stop partitions shall be provided at intervals not to exceed 300 feet. Such walls or partitions shall have doors of a type that are at least 1¾-inch solid core wood doors and the partitions shall be the equivalent of one-hour construction.

31.16(5) Any cafeterias, gymnasiums or auditoriums shall be separated from the rest of the building by solid walls and no exits from

other parts of the building shall require passing through such assembly areas.

31.16(6) Open plan buildings that do not have a direct exit door from each classroom to the outside shall be protected by a complete automatic fire detection system.

31.16(7) A sprinkler system may be installed in lieu of an automatic fire detection system in an open plan building.

31.16(8) Distance of travel to the nearest exit in an open plan building shall not exceed 100 feet from any point except that in a sprinklered building, the distance may be increased to 150 feet.

[Filed April 6, 1965; amended October 17, 1969]

CHAPTER 32

FIRE SAFETY RULES FOR HOTELS, APARTMENT HOUSES, DORMITORIES, LODGING OR ROOMING HOUSES

32.1(100)T.III General principles and requirements—applicable to all classes of buildings in these rules.

32.1(1) Each building or structure referred to in these rules, whether new or old, designed for human occupancy, shall be provided with exits sufficient to permit the prompt escape of occupants in case of fire or other emergency. The design of exits and other safeguards shall be such that reliance for safety to life, in case of fire or other emergencies, will not depend solely on any single safeguard. Additional safeguards shall be provided for life safety in case any single safeguard is ineffective due to some human or mechanical failure.

32.1(2) Exits shall be so arranged and maintained as to provide free and unobstructed egress from all parts of every building or structure at all times when the building or structure is occupied. No locks or fastenings to prevent free escape from the inside of any building shall be installed on exit doors. Exit doors shall open outward and be indicated with the word "Exit."

32.1(3) Exits shall be visible or the route to reach them shall be conspicuously indicated in such manner that every occupant of every building or structure will readily know the direction of escape from any point within the building.

32.1(4) In buildings or structures where artificial illumination of exit signs is required, adequate and reliable illumination shall be provided for all of the exit signs.

32.1(5) All vertical ways of exit and other vertical openings between floors of buildings shall be suitably enclosed or protected as necessary to afford reasonable safety to the occupants while using the exits and also to prevent the spread of fire, smoke or fumes through vertical openings from floor to floor before occupants have evacuated the building.

32.1(6) *Window exits.* Window exits opening onto outside fire escape platforms are permissible in class B hotels, apartments, lodging and rooming houses provided the window is easily opened without the use of tools and is sufficient size to allow an adult to pass through.

32.1(7) *Dead-end corridors.* Dead-end corridors cannot exceed the first twenty feet of exit travel from any room door with means of exit in only one direction in a class A or class B hotel.

32.1(8) *Gas piping.* All gas piping and the installation of gas appliances shall be in accordance with the provisions of chapter 5, T.III.

32.1(9) *Electrical wiring and appliances.* The electric wiring, lighting and installation of all electrical appliances shall be in accordance with the standards of the current edition of the National Electric code.

32.1(10) *Fire protection equipment and devices.* Approved type fire extinguishers shall be provided on each floor, so located that they will be accessible to the occupants, and spaced so that no person will have to travel more than seventy-five feet from any point to reach the nearest extinguisher. Additional extinguishers may be installed in areas that constitute a special hazard. Type and number of portable fire extinguishers shall be determined by the state fire marshal.

32.1(11) In all buildings or structures of such size, arrangement or use, where delayed detection of a fire could endanger the occupants, the fire marshal may require an automatic fire detection alarm system.

32.1(12) In cases of practical difficulty or unnecessary hardship, the state fire marshal may grant exceptions to these rules but only when it is clearly evident that reasonable safety is thereby secured. Existing buildings and structures shall not be occupied or used in violation of the provisions of these rules.

32.1(13) Nothing in these rules shall be construed to prohibit better types of building construction, more exits, or otherwise safer conditions than the minimum requirements specified in these rules.

32.1(14) Compliance with these rules shall not be construed as eliminating or reducing the necessity for other provisions for safety of persons under normal occupancy conditions nor shall any provisions be construed as requiring or permitting any condition that may be hazardous under normal occupancy conditions of buildings or structures.

32.2(100)T.III Definitions.

32.2(1) For the purpose of these rules, the following definitions and classifications shall be used.

32.2(2) *Hotels—Class A.* Class A hotels shall include all buildings or group of buildings, under the same management, in which

there are more than twenty-five sleeping accommodations for hire, primarily used by transients who are lodged with or without meals, whether designated as a hotel, inn, club, motel, or by any other name. So-called apartment-hotels shall be classified as hotels.

32.2(3) Hotels—Class B. Class B hotels shall include all buildings or group of buildings, under the same management, in which there are twenty-five or less sleeping accommodations for hire, primarily used by transients who are lodged with or without meals, whether designated as a hotel, inn, club, motel or by any other name. So-called apartment-hotels shall be classified as hotels. Class B hotels, more than two stories in height, shall be limited to sleeping accommodations for ten persons only in each story above the second story.

32.2(4) Apartment houses. This includes buildings furnishing living quarters for three or more families living independently from each other with independent cooking facilities whether designed as an apartment house, tenement, garden apartment, or using any other name.

32.2(5) Dormitories. This shall include buildings where group sleeping accommodations are provided for persons not members of the same family group. There may be several occupying large rooms or there may be a series of closely associated rooms under joint occupancy and single management. These buildings may be called college dormitories, fraternity houses, sorority houses, nurses' homes, convents, or similar types of occupancy.

32.2(6) Lodging or rooming houses. This shall include buildings or groups of buildings, under the same management, in which separate sleeping rooms are rented providing sleeping accommodations for a total of more than four persons who are nonrelated. Accommodations may be for either transients or permanent guests, with or without meals, but without separate cooking facilities for individual occupants.

32.2(7) Row housing. Contiguous individual family units two stories in height, separated by fire walls from roof level to basement floor with no access through the fire wall, shall not be classed as an apartment house but shall be classed as single family dwellings for the purpose of these rules only.

32.3(100) T.III Hotels.

32.3(1) This rule shall apply to hotels as defined in 32.2(100)T.III, 32.2(2) and 32.2(3).

32.3(2) Exits.

a. No less than two exits, as remote from each other as practical, shall be accessible from every floor. Exits and ways of access thereto shall be so arranged that from every point in any opened area, or from any room door, exits will be accessible in at least two different directions except as provided in 32.1(7).

b. The exits, as specified in 32.3(1)"a", shall be such that it will not be necessary to travel more than 100 feet from the door of any room to reach the nearest exit, except that where an automatic sprinkler system is provided, the distance may be increased to 150 feet.

c. Types of exits from upper floors. Exits from upper floors shall be in accordance with the following types: (1) Enclosed stairways, (2) horizontal exits, (3) outside stairways, (4) fire escapes, class B.

d. Construction and arrangements of exits. All stairs, ramps, or other ways of exit shall be of such width and so arranged as to avoid any obstruction to the rapid evacuation of the hotel in the event of fire. Fire escapes shall be constructed as specified in chapter 103, of the Code.

e. Exits from public hallways or passageways in class A hotels shall have illuminated signs with the word "EXIT" in letters 6 inches high and $\frac{3}{4}$ inch wide. Where the exits are not visible from every point of the hallway or passageway, directional signs shall be provided to indicate the exit. Class B hotels shall have exits plainly marked and if artificial illuminated signs are necessary, they shall be the same as required for class A hotels.

f. In class B hotels, the second means of exit may be a class C fire escape in accordance with section 103.7 of the Code, providing the hotel does not exceed four full stories in height.

g. There shall be conspicuously displayed, in each sleeping room of class A hotels, a legible floor plan showing the arrangement of exits and the direction of travel to reach them from the guest room.

32.3(3) Protection of vertical openings.

a. All stairways, elevator shafts and other vertical openings shall be enclosed or protected with material equal to one-hour, fire-resistive construction. All required exit stairs, which are located so that it is necessary to pass through the lobby or other open space to reach the outside of the building, shall be continuously enclosed down to the lobby level.

b. Unprotected vertical openings may be permitted in fire-resistive buildings with class A finish, or in sprinklered buildings, not to exceed two floors. This paragraph is to permit open stairways from the lobby to the mezzanine level or open stairs from the lobby to basement areas used for hotel purposes.

c. Wire glass, not to exceed 900 square inches in any single frame, may be used in stairway doors.

d. All doors to stairway enclosures shall be equal to the fire-resistive construction required in 32.3(3)"a", and shall be a self-closing type.

32.3(4) Interior finish. The exit ways, lobbies, public assembly meeting rooms and corridors shall have class A interior finish. Class A finish shall mean the use of materials having a flame spread of less than twenty-five

as rated by the National Board of Underwriters Laboratories.

32.3(5) Basements. Basements used only for storage, heating equipment or other purposes than hotel occupancy, open to guests or to the public, shall have no unprotected openings to floors used for hotel purposes.

32.3(6) Special hazard areas. All rooms or areas of hazardous occupancy such as those containing boilers, furnaces, refrigerating machinery, transformers, or storage areas, shall be separated or cut off from other parts of the building by fire walls or fire doors.

32.3(7) Fire alarm systems and evacuation.

a. Each hotel, both class A and class B, shall have an alarm device of such character and so located as to arouse all the occupants of the building in case they are endangered by fire. In class A hotels, an alarm sending station shall be provided at the hotel desk or other convenient control point under the continuous supervision of responsible employees. Additional alarm sending stations or automatic fire detection devices may be required when, in the opinion of the state fire marshal, it is necessary to install such devices because of the size or number of occupants in the hotel.

b. The hotel management shall formulate a plan and instruct the employees on the proper procedure to immediately notify the public fire department in case of fire.

c. Hotels having fifteen or less guests, with each room having a telephone operated from a central switchboard, can waive the requirements of 32.3(7) "a".

32.3(8) Fire extinguishers. Each hotel, both class A and class B, shall have fire extinguishers of a size and type and so located as to be effective in extinguishing a small fire. There shall be one class 2A fire extinguisher located in each corridor on each floor that is accessible to all occupants of the floor. In the case of large buildings, the number of fire extinguishers shall be determined by having one class 2A extinguisher for each 2500 square feet or less of floor area. In hotel kitchens, boiler rooms, paint storage rooms, electric vault rooms, or other areas where there are special hazards to protect, there shall be a minimum of one class 8B-C fire extinguisher. In the case of hotels having inside standpipe equipped with hose that will reach all areas of the floor, the requirement for class 2A extinguishers may be waived.

32.4(100) T.III Apartment houses.

32.4(1) Any apartment building which complies with all of the requirements of 32.3(100) T.III, may be considered as a hotel and the following paragraphs waived.

32.4(2) Each living unit shall have access to at least two separate exits which are remote from each other and are reached by travel in different directions, except that a common path of travel may be permitted for the first

twenty feet; that is, a dead-end corridor serving apartments may be permitted not to exceed twenty feet in length.

32.4(3) Protection of vertical openings. The protection of vertical openings in apartment buildings shall meet the same requirements as set forth in 32.3(3).

32.4(4) Interior finish. Interior finish in apartment buildings shall meet the requirements as set forth in 32.3(4).

32.4(5) Exit lighting and signs. All apartment buildings two or more stories high, and having more than ten apartment units, shall have corridor and exit signs. The illumination of corridor and exit signs shall be such that people of normal vision can move freely and the exit signs shall be legible at all times from any common corridor area.

32.4(6) Hazardous occupancies. Hazardous occupancies in apartment buildings such as boiler rooms, utility rooms and general storage areas shall be protected by walls and fire doors constructed of materials providing at least a minimum of one-hour fire rating.

32.5(100) T.III Dormitories.

32.5(1) Any dormitory meeting all of the requirements in 32.4(100) T.III, will be acceptable and the following provisions may be waived.

32.5(2) Exits.

a. All dormitories shall have exits so arranged that from any sleeping room or open dormitory sleeping area there will be access to two separate and distinct exits in different directions with no common path of travel unless the room or space is subject to occupancy of not more than ten persons and has a door opening directly to the outside of the building at street or grade level.

b. Exits shall be so arranged that it will not be necessary to travel more than one hundred feet from any point to reach the nearest outside door, stair or fire exit.

c. Exits from upper floors shall be sufficient to provide at least one unit of exit width for every thirty persons. All exit stairways and other vertical openings shall be enclosed or protected with material equal to one-hour, fire-resistive construction. Wire glass, not to exceed 900 square inches in any single frame, may be used in the protection of vertical openings.

d. Corridor and exit ways in dormitories shall have emergency lighting and illuminated exit signs with the word "EXIT" in letters 6 inches high and ¾-inch wide. Where exit signs are not visible from every point of a hallway or passageway, directional signs shall be provided to indicate the exit.

32.5(3) Interior finish. All interior finish of dormitories in the corridors, stairways and exit ways shall be class A. Class A finish is also required in sleeping rooms providing accommodations for more than two persons.

32.5(4) *Fire alarm systems.* A manual fire alarm system shall be required for every dormitory and in the case of college, university and school buildings, fire drills shall be regularly conducted and all residents informed as to the meaning of the fire alarm signals and the proper procedure to follow in case the fire alarm is sounded.

32.5(5) *Fire extinguishers.* Extinguishers shall be required in dormitories in accordance with 32.3(8).

32.5(6) *Construction and arrangement.* Dormitories shall be so arranged as to provide 125 square feet for residents as it relates to the gross area of the building. All new construction shall be in accordance with the applicable provisions of the following paragraphs.

a. *Fire-resistive construction.* There is no limit to the area and height of the building.

(1) Columns and piers shall have a fire-resistance rating of not less than three hours.

(2) Floors shall have a fire-resistance rating of two hours.

(3) Roofs shall have a fire-resistance rating of not less than one and one-half hours.

(4) Beams, girders and trusses shall have a fire-resistance rating of two hours.

(5) Walls bearing exterior and interior portions shall have a fire-resistance rating of three hours.

(6) Partitions shall have a fire-resistance rating of two hours.

b. *Noncombustible construction.* Noncombustible construction is limited to two stories except when protected with an approved sprinkler system.

(1) General—all structural including walls, partitions, columns, piers, beams, girders, joists, trusses, floors and roofs shall be of approved noncombustible rating not less than one-hour fire-resistive.

(2) Exterior walls shall have fire-resistive rating of two hours.

c. One-story buildings shall be constructed of not less than one-hour, fire-resistant construction throughout except that boiler rooms, heating rooms and combustible storage rooms shall be two-hour, fire-resistant construction. Protected wood frame construction, when roof and floor construction and their supports have one-hour, fire-resistance and stairways and other openings through floors are enclosed with partitions having one-hour, fire-resistance, shall be acceptable as one-story buildings for dormitories.

d. Other types of construction for dormitories not permitted.

e. The ratings noted in the above paragraphs are those specified in the National Fire Protection Association codes.

32.6(100)T.III **Lodging or rooming houses.**

32.6(1) *Exits.* There shall be two means of exit from each floor remote from each other. These exits shall be accessible to all residents

on each floor in case of an emergency. One means of exit for lodging or rooming houses may be a fire escape. Class C, as described in section 103.7 of the Code, providing however, there are not more than ten adults on any floor and the building does not exceed four stories in height.

32.6(2) Any sleeping room below the street floor shall have a direct access to the outside of the building.

32.6(3) The general requirements for fire safety as set out in 32.1(100)T.III, shall be applicable in lodging and rooming houses when, in the opinion of the state fire marshal, such specific safeguards are needed to insure the safety to life in the event of fire and whether specifically mentioned or not, lodging and rooming houses shall meet the intent of 32.1(100)T.III.

32.6(4) No frame dwelling, more than three stories in height, shall be occupied or remodeled for use as a lodging or rooming house.

[Filed June 22, 1962]

TITLE IV
MOTOR VEHICLE REGISTRATION
DIVISION

CHAPTER 1
TRANSFER OF OWNERSHIP

1.1(321)T.IV The transfer of ownership of a registered vehicle which has been repossessed may be effected without obtaining the registered owner's signature on the notice or application for transfer appearing on the reverse side of the certificate of registration, provided that the mortgage or conditional sales contract under which such repossession was had, has been filed in the county recorder's office of the county in which such notice or application for transfer is made, and provided further that a repossession affidavit together with the original mortgage or conditional sales contract, or a certified or photostatic copy thereof, is filed with the county treasurer of said county. Such repossession affidavit shall be in substantially the following form:

"AFFIDAVIT OF REPOSSESSION

State of Iowa,County, ss.
I,, Being an Officer of the Firm of, located at, Iowa, on oath depose and say that the motor vehicle described as follows: Make..... Model..... Year..... Style..... Motor No..... Factory No..... Registration No..... for 19....., which was sold of, Iowa,
as per our

Conditional Sales Con.
Chattel Mortgage
and recorded in County of in File No..... Receipt No..... has been repossessed by said for failure

of the purchaser to comply with the conditions as set forth in said contract (copy attached), specifically giving the holder thereof the right to repossession under conditions of such contract.

Signed.....

For.....

Subscribed and sworn to before me by said...

....., this day of, 19....

Notary Public"

(Seal)

Vehicles which have been repossessed by a finance company must first be transferred to such company before any transfer of ownership may be made to an individual purchaser or dealer. The ownership of a vehicle which has not been registered for the current year and which has not been stored in accordance with the provisions of law, cannot be transferred under the procedure set forth herein until such time as it has been currently and properly registered in the name of its registered owner.

1.2(321)T.IV The ownership of a vehicle which has been properly stored in accordance with the provisions of chapter 321 of the Code, may be transferred to a purchaser without being registered for the year in which such transfer is made.

1.3(321)T.IV The ownership of a registered vehicle may be transferred on the previous year's registration certificate by its individual owner to a licensed dealer during the month of January.

1.4(321)T.IV The ownership of a registered truck, truck tractor, road tractor, trailer or semitrailer may not be transferred after June 30 in any year unless the annual registration fee for such vehicle has been paid in full for that year.

1.5(321)T.IV A new and unregistered vehicle purchased from a dealer in another state who is authorized by such state to sell such vehicle unregistered, may be registered in Iowa if the applicant for registration presents to the county treasurer or to the department a certified copy of the dealer's printed invoice together with an affidavit showing such dealer to be authorized to sell such vehicle as a new unregistered vehicle in his home state.

1.6(321)T.IV When an Iowa registration certificate or card shows the owner of the registered vehicle to have an out-of-state address, the county treasurer before transferring the ownership of such vehicle to a purchaser shall require the surrender of the Iowa registration certificate or card and in addition there-to shall require the purchaser to file an original or certified copy of a bill of sale showing ownership of such vehicle to be in him.

1.7(321)T.IV The owner of a house trailer which is not currently registered may register such vehicle at any time during the calendar year on a pro rata registration fee upon filing

with the county treasurer an affidavit, duly sworn to and acknowledged, in which the owner states that such vehicle has been actually used for dwelling purposes for more than six months during the preceding calendar year and that such vehicle has not been moved upon the highways of this state at any time during the current calendar year. In the absence of a showing in said affidavit that the sales tax or use tax on such vehicle has been paid, the county treasurer shall require payment of the Iowa use tax before registering such vehicle.

1.8(321)T.IV All vehicle registration plates or number plates issued by a county treasurer shall be issued by him in numerical sequence.

1.9(321)T.IV Where the ownership of a vehicle is transferred by a peace officer's bill of sale or by an order of court, and such vehicle is not currently registered in Iowa, the registration fee for such vehicle shall be computed in accordance with the following rules:

1.9(1) When ordered confiscated or forfeited by a court under a judgment of forfeiture, the fee shall be on a pro rata basis from the date of the court's order;

1.9(2) When sold on a peace officer's bill of sale as an unclaimed stolen, embezzled or abandoned vehicle, or as a vehicle seized under the provisions of section 321.84 of the Code, the fee shall be on a pro rata basis from the date of such sale;

1.9(3) When sold or transferred under a judgment or order entered by a court in a civil action or proceeding, the fee shall be the full annual registration fee plus all delinquencies and accrued penalties to the date on which registration of the vehicle is completed.

1.10(321)T.IV Application for the designation of a vehicle as "special mobile equipment" may be made by the owner or lessee of such vehicle, provided such vehicle is only incidentally operated or moved over the highways of this state exclusively by such owner or lessee or his employees, and provided further that such "special mobile equipment" is permanently mounted on such vehicle. Such application may only be made to the motor vehicle registration division of this department, and if approved by the director of said division, special identifying plates bearing a number and the words "Special Mobile Equipment" will be issued without fee for such vehicle together with a certificate of designation and identification. Such special plates shall not be transferable from person to person nor from vehicle to vehicle and shall be securely attached to such vehicle at all times when it is being moved over the highways. Such certificate of designation and identification shall be in the immediate possession of the operator of such vehicle whenever it is being operated or moved over the highways.

The owner or lessee of any vehicle moving "special mobile equipment" which is not per-

manently mounted on such vehicle must apply for and receive a regular registration certificate and registration plates for such vehicle and pay the appropriate fee therefor. The appropriate registration fee for such vehicle shall be computed on the gross weight of the vehicle less the weight of the "special mobile equipment."

1.11(321)T.IV A certificate of designation issued for an authorized emergency vehicle shall expire at midnight on the thirty-first day of December in the year in which it was issued unless sooner revoked by the commissioner upon a showing of abuse thereof.

1.12(321)T.IV The notice to the county treasurer of the transfer of ownership of any registered vehicle shall be on the reverse side of the certificate of registration for such vehicle, and shall be in substantially the following form:

"BILL OF SALE... (Year) APPLICATION FOR TRANSFER STATE OF IOWA, ... COUNTY, SS: We being first duly sworn on our oaths state that ... whose address is ... Street, City of ... and County of ..., Iowa, purchased the vehicle described on the reverse side hereof from ... on the ... day of ..., 19... Application is hereby made for transfer of said vehicle to the purchaser.

..... Purchaser
..... Seller

I certify that the foregoing affidavit was fully completed, subscribed and sworn to before me on the ... day of ..., 19..., and I FURTHER CERTIFY THAT THE AFFIANTS SIGNED THE SAME IN THE PRESENCE OF EACH OTHER.

.....
Notary Public in and for said
County and State.

Receipt No."

Appearing vertically on the right-hand side of said form are the words, "A penalty of five dollars accrues for failure to complete transfer within five days from date of sale."

Appearing vertically on the left-hand side of said form are the words, "Forward with remittance of fifty cents to county treasurer."

1.13(321)T.IV The ownership of a registered vehicle may be transferred by a person holding a valid power of attorney from the owner of such vehicle. Before registering such vehicle in the name of the purchaser or transferee, the county treasurer shall require the person signing such transfer of ownership on behalf of the seller or transferor to file in his office a duly acknowledged power of attorney which may be in form and substance as follows:

"POWER OF ATTORNEY
TO TRANSFER INTEREST IN AND TO A
REGISTERED VEHICLE

State of Iowa, County of ..., SS:
Know all men by these presents, that I/we, the
undersigned, of ..., the
(Address)
owner(s) of a vehicle described as ...
(Description of vehicle)

..., bearing motor/serial number
..., have made, constituted and
appointed ... of
(Name)
..., my/our true and
lawful attorney for me/us, in my/our name(s),
place, and stead, to transfer all my/our title
and interest in said vehicle as an owner to
... Of ...
(Name of purchaser) (Address of purchaser)
Witness my/our hand(s) this... day of
..., 19...
(Signature)

Subscribed and sworn to before me this ...
day of ..., 19...
Notary Public in and for said County and State"

1.14(321)T.IV A permit, granting to a non-
resident applicant authority to enter or pass
through this state with a chartered bus party
without the necessity of first obtaining an Iowa
vehicle registration, may only be issued by the
motor vehicle registration division of this de-
partment, and shall be in such form as may be
prescribed and adopted by the director of said
division.

1.15(321)T.IV The owner of a house trailer
which is not currently registered and which is
actually being used solely for dwelling pur-
poses, may, upon application to the motor vehi-
cle registration division of this department, ob-
tain a permit granting him authority to move
such house trailer over the highways of this
state from one location to another without first
registering such vehicle. The application and
permit shall be in such form and substance as
the director of that division may prescribe.

1.16(321)T.IV The registration card or cer-
tificate issued for a trailer shall at all times be
carried in the driver's compartment of the tow-
ing vehicle.

1.17(321)T.IV Current registration receipt.
For the purpose of obtaining a certificate of
title upon presentation of a current registra-
tion receipt as provided in section 321.40 of the
Code, the term, "current registration receipt"
shall be deemed to include any immediately
previous year's registration receipt presented
during the month of January.

[Filed December 21, 1953]

TITLE V
Reserved for future use

TITLE VI
RULES FOR LICENSING DRIVERS

CHAPTER 1
DRIVER'S LICENSES

1.1(321)T.VI Driver's license examinations.
A person desiring to secure an Iowa driver's
license must pass an examination given in
Iowa by a uniformed driver's license ex-
aminer. He may take the examination as soon
as he is eligible for an operator's license, and

as soon as he feels that he has learned the rules of the road and has had sufficient practice to pass the examination.

The purpose of the examination is to determine three things:

1.1(1) Is the applicant physically and mentally competent to operate a motor vehicle with safety?

1.1(2) Does he know the law of the road, and has he had sufficient experience to operate a motor vehicle with safety?

1.1(3) Is he willing to keep his vehicle properly equipped for safe driving?

The examination shall consist of four parts: (a) Vehicle inspection; (b) driving test; (c) written or oral test; and (d) vision test. A person wishing to obtain an instruction permit will be required to pass parts "c" and "d" of such examination; a person wishing to secure an operator's or chauffeur's license will be required to pass parts "a", "b", "c" and "d" of such examination.

1.2(321)T.VI The usual signature of the licensee shall contain the surname as the last name appearing in the signature.

1.3(321)T.VI The full name appearing at the top of the license shall contain the Christian name in the first position and the surname in the last position.

1.4(321)T.VI All persons possessing a valid license who have a legal change in name shall immediately apply to the department for a license to be issued in his or her new name.

1.5(321)T.VI No license shall be valid unless it bears the signature of the licensee in conformance to these rules.

1.6(321)T.VI Time when an applicant may appear for re-examination:

1.6(1) If the uniformed driver's license examiner fails a person for low visual acuity which may be corrected by glasses, or if the applicant is refused an examination because of the condition of his vehicle, the applicant may appear again to complete the examination as soon as the necessary corrections have been made. The examination may be completed the same day in such cases, if the applicant's equipment is ready and time permits.

1.6(2) If the applicant must do some studying or practicing to complete the examination (as in the case where he has failed the tests on road rules and signs), he shall not be permitted to take the remainder of the examination until the following day except in the case of out-of-state drivers who are anxious to be on their way or other emergency cases. In any case, a second trial should not be given less than four hours after the first, because the applicant may need this much time to prepare himself properly.

1.6(3) If the applicant fails the road test and needs considerable practice, he shall not be

permitted to take the examination again within a week. An applicant who lacks very little of passing on the first driving test may be examined the following day at the discretion of the uniformed driver's license examiner.

1.7(321)T.VI Vehicle inspections.

1.7(1) The vehicle inspection will be made by the uniformed driver's license examiner. The vehicle shall be roadworthy, shall be properly equipped with two headlights and a tail-light in good working order, rear vision mirror, muffler, adequate foot and hand brakes, clear vision windshield of safety plate glass, windshield wiper, and horn or signaling device, and shall have proper registration plates and registration certificate.

1.7(2) No person shall be given a driving test until the vehicle which he presents for vehicle inspection meets the requirements as set forth herein. An applicant whose vehicle fails to pass the vehicle inspection test will be permitted to have the vehicle repaired or necessary adjustments made, and may return his vehicle for another inspection on the same day.

1.8(321)T.VI Road signs test. Applicants who are unable to read standard signs and the questions pertaining thereto may be given an oral examination. This shall be done by using a set of standard signs as illustrated in the Iowa drivers guide. The applicant shall be shown the signs one by one and will be asked to explain the meaning of each or tell what he would do upon reaching each particular sign and why. The applicant must correctly explain the meaning of these signs in order to pass. The results of an oral test should be recorded in the same manner as the written test.

1.9(321)T.VI Test for road rules.

1.9(1) Purpose. The purpose of the road rules test is to learn if the applicant knows driving rules well enough to permit him to drive safely.

1.9(2) Scoring. The following rules will govern the scoring of the written examination required of an applicant for an operator's license, restricted chauffeur's license, school permit, and instruction permit.

a. The applicant must satisfactorily answer twenty questions out of twenty-five questions submitted to him in order to qualify for an operator's license, school permit or instruction permit.

b. On road sign tests, the applicant must answer correctly seven out of ten questions submitted to him.

c. To satisfactorily pass the chauffeur's license examination, the applicant must correctly answer twenty-three out of thirty questions submitted to him.

Applicants who cannot read or write will be examined orally by the uniformed driver's license examiner taking a set of the stand-

ard rules questions and asking the applicant to give the correct answers. Results of such oral examinations will be recorded in the same manner as for written tests.

1.10(321)T.VI Road test procedures. Driving tests will be given whenever the weather permits; however, postponement of such tests will not be made unless absolutely necessary.

1.11(321) T.VI Vision examination. All applicant for an operating license will be required to pass a 20-40 vision test. If the applicant cannot score 20-40 vision without glasses and has glasses correcting his vision to 20-40, the license issued shall be restricted to wearing adequate glasses. If his vision score is 20-50 with each individual eye, and the applicant can score 20-40 reading with both eyes, the license shall not be restricted to glasses. If an applicant cannot score 20-40 vision with or without glasses he shall be referred to an eye specialist of his own choosing. If an applicant's vision score is less than 20-100 in one eye, his better eye should score 20-30 with or without glasses. Whenever the vision in the left eye is no better than 20-100, the applicant's license shall be restricted to the use of an outside rear vision mirror on the vehicle which he operates. A vision score of 20-75 or worse shall be considered as a vision failure.

License restrictions based on vision scores shall be substantially in accordance with the following table:

Vision Score	Restrictions Imposed on License
a. 20-40 to 20-50	"TO ADEQUATE GLASSES", when glasses are required to correct to this tolerance.
b. 20-50 to 20-60	"TO ADEQUATE GLASSES", when glasses will correct vision to this tolerance, plus "DAYLIGHT DRIVING ONLY".
c. 20-60 but better than 20-75	"TO ADEQUATE GLASSES", when glasses will correct vision to this tolerance, plus "DAYLIGHT DRIVING ONLY", plus "MAXIMUM SPEED 45 M.P.H."

1.12(321)T.VI Instruction permits. The law does not permit driving on Iowa highways without a driver's license, and requires an examination before a license may be issued. An applicant who is unable to pass the required driving examination may be issued an instruction permit, if he successfully passes all other tests required of him. A fee shall be charged for such instruction permit and the applicant may, at any time during the effective period of such permit, return to the driver's license examiner and upon successfully passing the required driving test, and paying the required statutory fee, be issued a regular license.

1.13(321)T.VI Restricted licenses. There are many borderline drivers who cannot be conscientiously approved for unrestricted use of the highways. The following is a partial list

of restrictions that may be imposed on any operating license whenever deemed necessary by the driver's license examiner:

1.13(1) Time. Some drivers may be restricted to daytime driving only, particularly aged drivers whose vision may be impaired. Other drivers may be restricted only to the times when it is necessary for them to go to and from school. In a few cases an operating license may be restricted to the driver's working hours only.

1.13(2) Devices. On driver, such as artificial legs, arms, braces, or other equipment except hearing aids.

1.13(3) Adequate glasses. The most common restriction which simply means that applicant must wear glasses while driving.

1.13(4) Type of vehicle. If the driving examination is taken on a motorcycle, a motor scooter, or other unusual vehicle, the applicant's license will be restricted to the use of that vehicle only, as for example, "Motorcycle only".

1.13(5) Taxicab or passenger car. Restricted to operation of taxicab or passenger car.

1.13(6) Place. Restrictions may be imposed on an applicant's license limiting his operation of a motor vehicle to a described route or to a certain community or locality, as, for example, "Restricted to driving within Smithfield city limits only".

1.13(7) Minors. When the application of a minor must be signed by the parent, or guardian, any restrictions requested by such parent or guardian will be made by the driver's license examiner. For example, if a parent insists that his child's application be restricted to driving the parent's vehicle, it will be so restricted until such time that the parent requests the restriction to be removed, or until the child becomes old enough to drive without the parent's consent. Such a restriction to a stated vehicle may read, "Restricted to driving vehicle owned by R. C. Smith of Thomasville", or, "Restricted to driving 1939 Plymouth coupe, engine No. 9603214".

1.13(8) Notation of restriction. Any restriction imposed on an operating license will appear in the space marked "Restriction" if space permits. A lengthy restriction may be placed on the back of the license with the word "OVER" in the restriction box.

1.14(321)T.VI Restricted licenses for minors. Any restricted license issued prior to July 4, 1953, under section 321.194 of the Code, as such section existed prior to its repeal on July 4, 1953, by virtue of Senate File 263, Acts of the 55th General Assembly, shall continue valid from and after July 4, 1953, until its holder's sixteenth birthday for the driving purposes permissible under, and subject to all terms, restrictions and conditions of, the substitute restricted license provision enacted

by said Senate File 263, Acts of the 55th General Assembly.

1.15(321) T.VI Standards for bodily disabilities. The following restrictions will be placed on the operating license of an applicant who is unable to pass the required driving test without special equipment or devices:

1.15(1) Extremities.

a. When both hands and both feet or one hand or one foot are missing or useless. . . License will be restricted to use of a vehicle equipped with needed special equipment.

b. When either hand is missing or useless. . . License will be restricted to use of artificial arm or to vehicle equipped with a grip knob on wheel and mechanical turn indicator.

c. When either foot is missing or useless. . . . License will be restricted to use of an artificial foot, or to use of a vehicle equipped with a pedal extension, or a manual brake or clutch.

1.15(2) General.

a. *Joints stiff.* Unrestricted license may be issued at discretion of driver's license examiner.

b. *Body or limbs shaky or wobbly.* Unrestricted license may be issued at discretion of driver's license examiner.

c. *Strength too small for legal stop.* No license will be issued applicant until special equipment is installed on vehicle to be used, such equipment to be so designed as to aid the person in the process of stopping.

d. *Stature too small for legal stop.* No license will be issued applicant until special equipment is installed on vehicle to be used, such equipment to be so designed as to aid the person in the process of stopping.

e. *Special equipment.* If any special or unusual equipment such as automatic gear shift, manually operated brakes or clutch, extra seat, cushions or power brakes is on the car used in the road demonstration the applicant's license shall be restricted to the use of a vehicle equipped with such special equipment, if needed.

1.15(3) Hearing—deaf. License will be restricted to the use of a vehicle equipped with an outside rear view mirror only if the applicant is accident-prone or has a bad driving record.

1.15(4) Whenever the department has reason to believe an applicant is physically incompetent, he shall not be licensed until he has been examined by competent medical authority and has been pronounced physically able to drive safely. Such statement must be presented, in writing, to the department. A special examination may be required of applicant before a final decision on the granting or the denial of a license is made by the department.

1.16(321) T.VI Mental disability standards.

1.16(1) No person who has ever been committed to or has been a patient in any prison,

asylum, state hospital, or similar institution, whether public or private, because of insanity, mental diseases, feeble-mindedness, epilepsy, catalepsy, alcoholism, drug addiction, "spells", seizures, or other similar disorders, shall be licensed as a motor vehicle driver until he has presented a certificate (or a certified copy thereof) signed by the head of the institution to which he had been committed stating that he has been discharged as cured.

1.16(2) Whenever the department has any reason to believe that an applicant for a motor vehicle driver's license is mentally incompetent, or disabled, he shall not be licensed until he has been examined by competent medical authority and pronounced able to drive safely.

1.16(3) When statements of restoration-to-competency or discharged-as-permanently-cured are required from institutions, they must be secured in writing by the applicant and supplied to the department signed and attested by the proper officials. The original (or a certified copy) of such court order or certificate must be presented to the driver's license examiner and forwarded to the department of public safety as a permanent part of the application for a motor vehicle driver's license.

1.17(321) T.VI Temporary driver's permit.

1.17(1) General. Any person on first application for a license to operate a motor vehicle, except for a school license, who successfully passes the required written, vision and driving tests, will be issued without charge, a temporary driving permit for a period not to exceed one year, during which time the department will continually review the applicant's driving record in order to complete its investigation and determination of all facts relative to granting of an operator's license to the applicant.

1.17(2) Invalidation.

a. *General.* This temporary driving permit will be invalidated by the department if the application for license is refused.

b. *Specific.* The department will refuse the application of a permit holder who is convicted of any moving traffic violation occurring during the life of the permit.

1.17(3) Reapplication. Such person will be ineligible to reapply for a license to operate a motor vehicle for a period of thirty days after invalidation. Furthermore, the department may require any such person to complete a class of instruction in driver improvement before establishing eligibility to reapply for such license.

1.17(4) Extension of permit. If the grounds for invalidation occur within six months of issuance, the new temporary driving permit will extend for a period of one year from the date of reissuance; if the grounds for invalidation occur after the sixth month of issuance, the new temporary driving permit will extend for a period of six months from the date of reissuance.

1.17(5) *Issuance of license.* Any applicant who remains violation free for the life of the temporary driving permit will, upon request, be issued a license to operate a motor vehicle upon payment of the statutory fee. If such request is not made within thirty days after the expiration of the temporary driving permit, the applicant must again successfully pass the required written and vision tests.

This rule is intended to implement section 321.181 of the Code.

[Filed July 9, 1953; amended September 14, 1964]

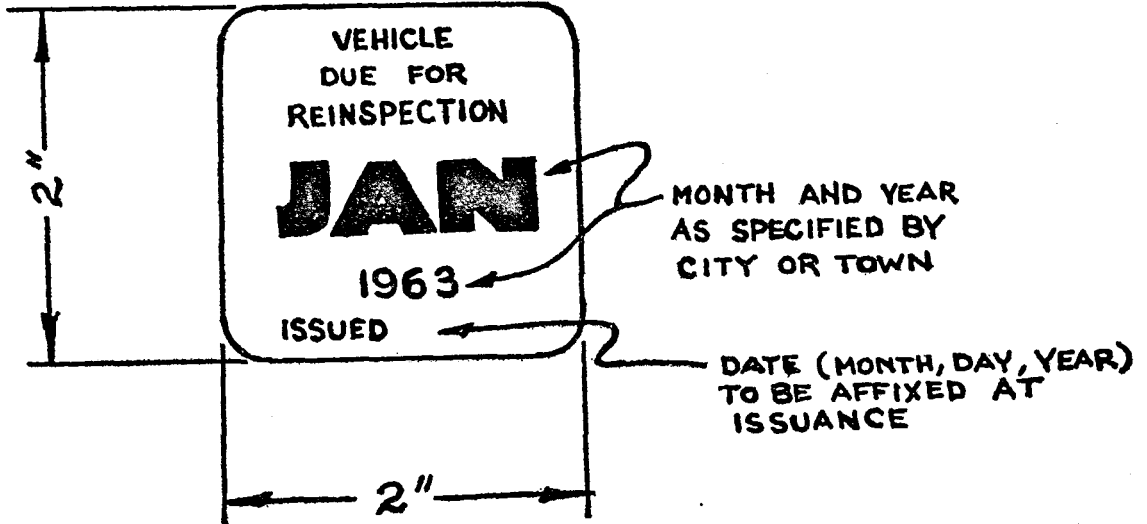
TITLE VII
STANDARDS AND TESTING FOR MOTOR
VEHICLE OPERATION

CHAPTER 1
MOTOR VEHICLE TESTING STATIONS

1.1(321)T.VII *Inspection sticker.*

1.1(1) The inspection sticker affixed upon the windshield of any motor vehicle so passing the tests as prescribed shall substantially comply with the following requirements:

a. *Shape, size and inscription.*



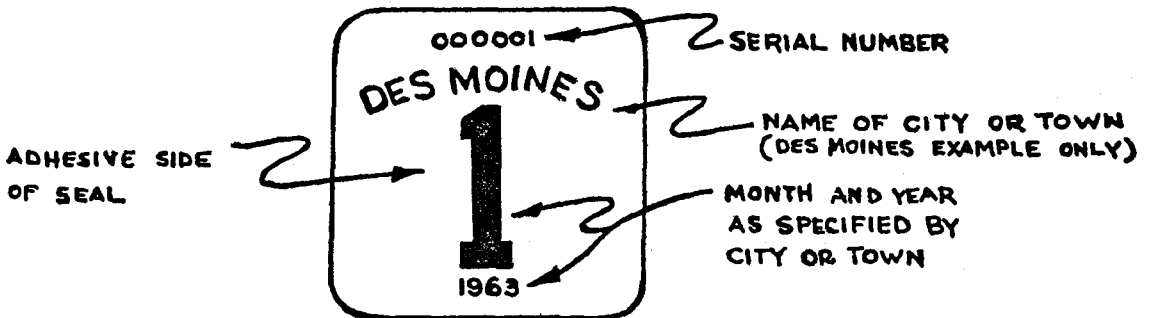
b. *Color.*

(1) The inspection stickers shall be of a distinctively different color each period of inspection.

(2) There shall at all times be a

marked contrast between the sticker and the inscription, letters or numerals thereon.

(3) Any and all of the following colors may be used: Red, yellow, green, blue, black, white.



1.2(321)T.VII *Supervision of tests and facilities.* The commissioner of public safety may inspect any and all motor vehicle testing stations at his discretion to determine whether the type of tests are being administered in conformity therewith and to determine whether facilities for conducting these tests are adequate and to insure a high level and a uniform standard of tests from all stations.

1.3(321)T.VII *Facilities.*

1.3(1) Motor vehicle testing stations must be equipped to test both domestic and foreign passenger vehicles.

1.3(2) Motor vehicle testing stations must be equipped to test commercial vehicles, both domestic and foreign.

1.3(3) Facilities should be maintained as a clean and orderly place of business.

1.3(4) Adequate space must be provided for inspection purposes. Inspection equipment should be spaced to gain the most effective use and to expedite inspection.

1.3(5) All inspection equipment must be installed and used in accordance with the manufacturer's recommendations, must be inspected frequently and maintained to insure proper functioning.

1.4(321) T.VII Required equipment.

1.4(1) Definition. Required equipment is equipment which vehicles, motor vehicles or classes of vehicles, motor vehicles are required to have by applicable law and regulation.

1.4(2) Inspection procedure. Items to be checked:

- a. Legal registration (certificate and plates).
- b. Vehicle glazing.
- c. Body items.
- d. Brakes.
- e. Tires.
- f. Lighting systems.
- g. Miscellaneous equipment.
- h. Exhaust system.
- i. Emergency warning devices.

1.4(3) Causes for rejection. Noncompliance with equipment requirements of applicable laws and regulations shall be cause for rejection.

1.5(321) T.VII Legal registration.

1.5(1) Definition of legal registration. Registration receipt either original or renewal and registration plate or plates.

1.5(2) Inspection procedure. Visual.

1.5(3) Causes for rejection.

a. Registration plate or plates not securely fastened in a horizontal position to the vehicle for which the same is or are issued so as to prevent the plate or plates from swinging.

b. Registration plate numbers not in agreement with registration receipt.

c. Registration plates not clearly visible and legible.

d. Registration certificate not plainly visible.

1.6(321) T.VII Vehicle glazing.

1.6(1) Definitions.

a. *Safety glass.* Any product composed of glass, so manufactured, fabricated or treated as substantially to prevent shattering and flying of the glass when struck or broken or such other or similar product as may be approved by the commissioner (Section 321.445 of the Code).

b. *Cloudiness.* Any degree of discoloration or separation discernable to the eye. Windshields approved with a tinted band across the top must not be confused with the cloudiness restrictions.

c. *Approved safety glass.* The list of ap-

proved safety glass compiled by the commissioner of public safety. Such list must be conspicuously displayed in the motor vehicle testing facility.

1.6(2) Inspection procedure.

a. Check all windows for safety glass where required.

b. Check windshield and all windows for cracks and sharp edges.

c. Check windshield and all windows for unauthorized materials or conditions which obscure driver's view.

d. Check rear window for visibility.

1.6(3) Causes for rejection.

a. Failure to use safety glass in all windows.

b. Nontransparent materials used to replace the vehicle glass or glazing materials.

c. Breaks, cracks, discolorations, cloudiness, badly scratched windshields, or for breaks, cracks, discolorations or cloudiness to the immediate right, left or rear of the driver which interfere with his vision.

d. Windows in poor condition. Vehicle windows which have sharp edges, are badly scratched, broken, or discolored or cloudy.

e. Wiper blade scratches on windshield if severe enough to distort vision.

f. Rear window visibility is unsatisfactory, unless adequate vision to the rear is provided by proper outside mirror.

1.7(321) T.VII Body items.

1.7(1) Inspection procedure.

a. Check for defective or dislocated parts projecting from vehicle.

b. Check floor pans on any vehicles manufactured before 1946.

c. Check bumpers, fenders and frames for protruding or broken sharp edges.

1.7(2) Causes for rejection.

a. Bumpers, fenders, exterior sheet metal and moldings having broken, sharp edges, or abnormal protrusions extending beyond normal vehicle extremities so to constitute either separately or collectively such an unsafe condition as to endanger any person.

b. Floor pans rusted through, on any vehicles manufactured before 1946, so as to endanger any person by permitting passage of exhaust gases into the body of the vehicle.

1.8(321) T.VII Brakes.

1.8(1) Definitions.

a. *Service brake.* The primary brake for retarding, stopping, and controlling a vehicle.

b. *Parking brake.* The brake independent in application from the service brake and is used for holding a vehicle while parked.

c. *Pedal reserve.* The amount of the total pedal travel left in reserve when the pedal is depressed to the brake applied position.

1.8(2) Inspection procedure.

a. Simple tests and visual inspection procedures (for inspection programs which

must accommodate a large volume of vehicles).

(1) *Pedal reserve.* Test vehicle in a standing position. With the brake pedal depressed under moderate foot force, (40-60 pounds in nonpowered systems and 15-20 pounds in power assisted systems), there should be a minimum of approximately one-third of the total available (manufacturer's specification) pedal travel remaining. The engine should be running when checking brake systems having power assisted hydraulic systems.

Cause for rejection: Less than approximately one-fifth of the total available pedal travel remaining when pedal is depressed under moderate foot force.

(2) *Service brake.* Test vehicle on a substantially level, dry, smooth, hard surface road or area that is free of loose material, oil, or grease. Using the service brake only, the stopping ability of the vehicle should be tested. Brake tests on the open highway should be at a speed of twenty miles per hour; such tests in an inspection station at a speed ranging from four to eight miles per hour. In either instance the vehicle must stop within the statutory requirement and must not pull to the right or left.

(3) *Parking brakes.* Check by parking the vehicle on grade upon which operated. Using only the parking brake system, the vehicle should be able to be safely parked in this position without using the total available actuator stroke.

Cause for rejection: Parking brake fails to hold vehicle on test grade.

b. Brake testing equipment procedures. The vehicle so tested must have a total braking effort of at least sixty percent of the weight of the vehicle which must be distributed not more than seventy percent on the front wheels nor less than thirty percent on the rear wheels. Corresponding wheels, front or rear, must show at least sixty percent of the braking effort of the opposite wheel. Tractor-trailer units must be inspected separately as to tractor and trailer.

1.9(321)T.VII Tires.

1.9(1) *Inspection procedure.* Visual.

1.9(2) *Causes for rejection.*

a. Solid rubber tires having less than one inch of rubber above the edge of the flange of the entire periphery on the entire traction surface.

b. One or more pneumatic tires worn to the extent that more than two layers of fabric or cords are exposed on the entire traction surface.

c. A tire or tires having on its periphery any block, stud, flange, cleat, or spike or any other protuberances of any material other than rubber which projects beyond the tread of the traction surface of the tire or tires, except it shall be permissible to use tire chains of reasonable proportions upon any vehicle when required for safety because of

snow, ice, or other conditions tending to cause a vehicle to skid.

1.10(321)T.VII Lighting systems.

1.10(1) *General.*

a. Road lighting equipment must be inspected to determine if the same complies with distribution requirements specified in sections 321.409 and 321.417 of the Code.

b. Rear lamps must comply with sections 321.387 and 321.388 of the Code.

c. All other lamps and signal devices, including but not limited to directional signal devices, shall meet the requirements and limitations as set forth in chapter 321 of the Code.

d. Optional equipment shall not be the basis for rejection providing the same shall meet the requirements and limitations set forth in chapter 321 of the Code.

e. Headlight testing equipment may be used in the motor vehicle testing station. However, such devices must be maintained in good working order and be capable of testing all types of approved lighting equipment. When no longer usable they must be replaced or other facility provided.

f. Reflectors and other safety devices when required shall meet the requirements and limitations set forth in chapter 321 of the Code.

1.10(2) Inspection procedure. Beams should be inspected for focus and aim, either on a screen at a distance of twenty-five feet ahead of the headlamps or with inspection equipment which gives essentially equivalent results.

1.10(3) *Causes for rejection.*

a. Any bulb in any lamp required by law or regulation which fails to function properly.

b. A cracked, broken, or missing lens.

c. A lens that is rotated, upside down, wrongside out, or is otherwise incorrectly installed.

d. A lens marked "left" or "right", not appropriately installed.

e. A separable type lens, the name of which does not correspond with the name stamped on the lamp body, unless it is specifically approved for use with that lamp body.

f. A headlamp with dirt or moisture inside, any obvious discoloration, contamination, or reflector deterioration.

g. A lamp which is not securely fastened to the vehicle.

h. A lamp showing a beam of color contrary to law or regulation.

i. Any lamp or lens which is turned or inclined so that its light is not properly directed.

j. Any lamp or reflex reflector not of an approved type when approval is required.

The list of approved lighting devices and safety devices compiled by the commissioner must be conspicuously displayed in the motor vehicle testing facility.

k. A cracked, broken, missing lens or reflex reflector.

1.11(321)T.VII Miscellaneous equipment.

1.11(1) Horn.

a. A motor vehicle or vehicle not equipped with a horn in good working order must be rejected.

b. A motor vehicle or vehicle equipped with a horn or other warning device emitting an unreasonably loud or harsh sound or a whistle must be rejected.

1.11(2) Rear-view mirror. A motor vehicle not equipped with a mirror so located as to reflect to the driver a view of the highway for a distance of at least 200 feet to the rear of such vehicle must be rejected.

1.11(3) Windshield wipers. The windshield on every motor vehicle shall be equipped with a device for cleaning rain, snow, or other moisture from the windshield, which device shall be so constructed so as to be controlled or operated by the driver of the vehicle. Any motor vehicle not so equipped must be rejected.

1.12(321)T.VII Exhaust system.

1.12(1) Inspection procedure. The exhaust system should be examined visually if the sound of the engine running indicates a defective exhaust system. Rusted or corroded surfaces should be given attention.

1.12(2) Causes for rejection.

a. Holes, leaking seams, or loose interior baffles in the muffler.

b. A muffler cutout, muffler by-pass, or similar device.

1.13(321)T.VII Emergency warning devices.

1.13(1) Definitions. Include lanterns, electric emergency lanterns, fuses, reflector-type flares, and flags.

1.13(2) Inspection procedure. When emergency warning devices are required by statute or regulation, they should be checked in accordance with the provisions of such law or regulation.

1.13(3) Causes for rejection.

a. Not of an approved type, make, model, number of units, or capacity.

b. Not in operating condition.

These amendments to the rules are intended to implement section 321.245 of the Code.

[Filed November 14, 1962; amended July 6, 1964; September 16, 1964]

CHAPTER 2

MOTOR CARRIER SAFETY RULES

2.1(325)T.VII Definitions.

2.1(1) "Vehicle" means every device in, upon, or by which any person or property is or may be transported or drawn upon a highway for compensation.

2.1(2) "Motor vehicle" means every self-propelled vehicle used for carrying freight or

property for compensation which is required to be registered for a gross weight of 10,000 pounds or more, or is used to transport more than nine passengers for hire, but not including city transit buses or school buses.

2.1(3) "Trailer" means every vehicle without motive power required to be registered for a gross weight of 8,000 pounds or more, designed for carrying persons or property for compensation, and for being drawn by a motor vehicle.

2.1(4) "Semitrailer" means every vehicle without motive power required to be registered for a gross weight of 24,000 pounds, or more, designed for carrying persons or property for compensation, and for being drawn by a motor vehicle and so constructed that some part of its weight and that of its load rests upon or is carried by another vehicle.

2.1(5) "Motor truck or truck" means every motor vehicle required to be registered for a gross weight of 10,000 pounds or more, designed for carrying livestock, merchandise, or freight of any kind for compensation.

2.1(6) "Truck tractor" means every motor vehicle required to be registered for a gross weight of more than 24,000 pounds, designed and used for drawing other vehicles for compensation and not so constructed as to carry a load other than a part of the weight of the vehicle and load so drawn.

2.1(7) "Bus" means any motor vehicle used to transport more than nine persons for compensation but not including city transit buses or school buses.

2.2(325)T.VII Equipment.

2.2(1) Electrical equipment wiring specifications. Wiring for both low tension and high tension circuits shall be constructed and installed so as to function reliably and adequately and shall conform to the appropriate requirements in the SAE standard for "Insulated Cable" or by wiring which is mechanically and electrically at least equal to such cable. Required lamps shall be connected to the source of power with such standard wire. The source of power, and candle power of the bulb and the electrical wiring shall be of such size and characteristics that required lamps shall when lighted be capable of being seen at least 500 feet under clear atmospheric conditions during the time lamps are required to be lighted. This shall not be so construed as to prohibit the use of the frame or other metal parts of a motor vehicle as a return ground system provided that for truck tractor-semitrailer combinations, the truck tractor is electrically bonded to the semitrailer.

2.2(2) Wiring to be protected. Wiring shall, when possible, be grouped together and protected by nonmetallic tape, braid, or other covering capable of withstanding severe abrasion or shall be protected by being enclosed in a metallic sheath or tube. Wiring shall be prop-

erly supported. Wiring shall not be so located as to be likely to be charred, overheated, or enmeshed in moving parts. Insofar as is practicable, wiring shall not be adjacent to any part of the fuel system. The edges of all holes in metal through which the wiring passes unless the wiring is metal covered, shall be rolled or bushed with a grommet of rubber or other suitable material.

2.2(3) Grounds. The battery ground and trailer return ground connections on a grounded system shall be readily accessible. The contact surfaces of electrical connections shall be clean and free of oxide, paint, or other nonconductive coating.

2.2(4) Battery installation. Every storage battery on every vehicle, unless located in the engine compartment, shall be covered by a fixed part of the motor vehicle or protected by a removable cover or enclosure. Removable covers or enclosures shall be substantial and shall be securely latched or fastened. The storage battery compartment and adjacent metal parts which might corrode by reason of battery leakage shall be painted or coated with an acid-resisting paint or coating and shall have openings to provide ample battery ventilation and drainage. Wherever the cable to the starting motor passes through a metal compartment, the cable shall be protected against grounding by an acid and waterproof insulating bushing. Wherever a battery and a fuel tank are both placed under the driver's seat, they shall be partitioned from each other, and each compartment shall be provided with an independent cover, ventilation and drainage.

2.2(5) Overload protection devices. The current to all low tension circuits shall pass through overload protective devices except that this requirement shall not be applicable to battery-to-starting motor or battery-to-generator circuits, ignition and engine control circuits, horn circuits, electrically-operated fuel pump circuits, or electric brake circuits. Protective devices for electric circuits on every motor vehicle the date of manufacture of which is subsequent to June 30, 1953, except motor vehicles being transported in driveaway-tow-away operations, shall be arranged so that either the head lamp circuit or circuits shall not be affected by a short circuit in any of the other lighting circuits on the motor vehicle, or if the head lamp circuit is protected in common with other electrical circuits, the protection device shall be an automatic reset overload circuit breaker.

2.2(6) Detachable electrical connection. Electrical wiring between towing and towed vehicles shall be contained in a cable or cables or entirely within another substantially constructed protective device. All such electrical wiring shall be mechanically and electrically adequate and free of short or open circuits. Suitable provision shall be made in every such detachable connection to afford reasonable

assurance against connection in an incorrect manner or accidental disconnection. Detachable connection made by twisting together wires from the towed and towing units are prohibited. Precaution shall be taken to provide sufficient slack in the connecting wire or cable to accommodate without damage all normal motions of the parts to which they are attached.

2.2(7) Wiring—installation. Electrical wiring shall be systematically arranged and installed in a workmanlike manner. All detachable wiring, except temporary wiring connections for driveaway-towaway operations, shall be attached to posts or terminals by means of suitable cable terminals which conform to the SAE standard for "Cable Terminals" or by cable terminals which are mechanically and electrically at least equal to such terminals. The number of wires attached to any post shall be limited to the number which such post was designed to accommodate. The presence of bare, loose, dangling, chafing, or poorly connected wires is prohibited.

2.3(325) T.VII Brakes.

2.3(1) Brake tubing and hose, adequacy. Brake tubing and brake hose shall be:

a. Designed and constructed of proper material and so installed as to insure proper continued functioning;

b. Sufficiently long and flexible as to accommodate without damage all normal motions of the parts to which they are attached;

c. Suitably secured against chafing, kinking, or other mechanical injury; and

d. Brake hose shall be so constructed as to insure adequate and reliable functioning and shall conform to the appropriate specifications set forth in the SAE Standards for "Hydraulic Brake Hose", "Air Brake Hose", or "Vacuum Brake Hose".

2.3(2) Brake tubing and hose connections. All connections for air, vacuum, or hydraulic braking systems shall:

a. Be adequate in material and construction to insure proper continued functioning;

b. Be designed, constructed, and installed so as to insure when properly connected, an attachment free of leaks, constrictions, or other defects;

c. Have suitable provision in every detachable connection to afford reasonable assurance against accidental disconnection;

d. Have the vacuum brake engine manifold connection at least 3/8 inch in diameter.

2.3(3) Brake lining. The brake lining on every motor vehicle and trailer shall be so constructed and installed as not to be subject to excessive fading and grabbing and shall be adequate in thickness, means of attachment, and physical characteristics to provide for safe and reliable stopping of the motor vehicle.

2.3(4) Single valve to operate all brakes. Every motor vehicle, the date of manufacture

of which is subsequent to June 30, 1953, which is equipped with power brakes, shall have the braking system so arranged that one application valve shall when applied operate all the service brakes, on the motor vehicle or combination of motor vehicles. This requirement shall not be construed to prohibit motor vehicles from being equipped with an additional valve to be used to operate the brakes on a trailer or trailers. This rule shall not be applicable to driveaway-towaway operations unless the brakes on such operations are designed to be operated by a single valve.

2.3(5) *Warning devices and gauges.*

a. Air brakes. Every bus, truck, and truck tractor using compressed air for the operation of its own brakes or the brakes on any towed vehicle shall be equipped with a warning signal readily audible or visible to the driver, which will give continuous warning at all pressures below a fixed pressure not less than one-half the compressor governor cutout pressure. In addition, each such vehicle shall be equipped with a pressure gauge which will indicate to the driver the pressure in pounds per square inch available for braking.

b. Vacuum warning signal. Every bus, truck, and truck tractor using vacuum for the operation of its own brakes or the brakes on any towed vehicle shall be equipped with a warning signal readily audible or visible to the driver, which will give continuous warning at any time the vacuum in the vehicle's supply reservoir is less than eight inches of mercury. In addition, each such vehicle shall be equipped with a vacuum gauge which will indicate to the driver the vacuum in inches of mercury available for braking.

2.4(325)T.VII *Glazing and window construction.*

2.4(1) *Glazing in specified openings.*

a. Windshield condition. Every motor vehicle windshield shall be free of discoloration or other damage, except that discoloration and damage as follows are allowable:

(1) Coloring or tinting applied in manufacture for reduction of glare.

(2) Any crack not over $\frac{1}{4}$ inch wide, if not intersected by any other crack and if it does not interfere with the driver's vision.

(3) Any damaged area which can be covered by a disc $\frac{3}{4}$ inch in diameter, if not closer than 3 inches to any other such damaged area and does not interfere with driver's vision.

b. Use of vision-reducing matter. No motor vehicle may be operated with any label, sticker, decalomania, or other vision-reducing matter covering any portion of its windshield or windows at either side of the driver's compartment, except that stickers required by law may be affixed, at the bottom of the windshield, provided no portion of any label, sticker, decalomania, or other vision-reducing matter may extend upward more than $4\frac{1}{2}$ inches from the bottom of such windshield.

2.4(2) Window construction. Windows in trucks and truck tractors. Every truck and truck tractor, except vehicles engaged in armored car service, shall have, in addition to the area provided by the windshield, at least one window on each side of the driver's compartment which windows shall have sufficient area so as to allow clear and unrestricted vision to the right and left. However, if the cab is designed with clear openings where doors or windows are customarily located, then no windows shall be required in such locations.

2.5(325)T.VII *Fuel systems.*

2.5(1) *Requirements and prohibitions.*

a. Fuel container location. No part of any fuel tank or container or intake pipe shall project beyond the over-all width of any motor vehicle upon which it is mounted. No part of any fuel tank shall be located forward of the front axle of the power unit upon which it is located, except that this requirement shall not apply to trucks manufactured prior to September 30, 1953, which have a total fuel capacity of less than twenty gallons, nor shall fuel be supplied to the engine of a bus, truck, or truck tractor from a fuel tank or container located on a semitrailer or trailer.

b. Fuel container on bus. No part of any fuel tank or container or intake pipe shall be located within or above the passenger-carrying portion of any bus unless securely sealed off from such compartment by means of a substantial metal cover. The fuel container, including intake pipes, caps, and vents, on every bus, except buses having a seating capacity of nine or less persons, shall be so designed that, in the event of overturn, the fuel will not be spilled at a rate in excess of one ounce per minute.

c. Gravity or siphon feed prohibited. No fuel system on a motor vehicle shall be so constructed as to permit gravity or siphon feed direct to the carburetor or injector.

d. Selector valves. If a motor vehicle is equipped with a selector control valve for fuel feed from two or more tanks, such valve shall be installed so that either (1) it is in normal reach of the driver so that he can readily operate it without taking his eyes from the road or moving from his customary driving position, or (2) the driver must stop the vehicle and leave his seat in order to operate the valve.

e. Liquid fuel tank requirements.

(1) Every liquid fuel tank or container used for fuel for use on any motor vehicle shall be of substantial construction, free of leaks, securely attached to the motor vehicle, and shall have its filling opening provided with a plug or cap with means for securing it in place, such as by the use of properly fitted screw threads or bayonet type joint, and without leaks except as elsewhere provided in these rules with regard to tank vents.

(2) Replacement side-mounted gasoline tanks, the date of manufacture of which

is subsequent to November 30, 1953, shall comply with the requirements of paragraphs "f" and "g" of this rule.

f. Liquid fuel tank construction.

(1) *Material.* Material used in the construction of the tank and its fittings shall be suitable for the purpose intended.

(2) *Joints.* Joints of the tank body shall be closed only by arc, gas, seam, or spot welding, brazing, or silver soldering.

(3) *Fittings.* The tank shall be provided with suitable flanges or spuds for the assembly of all fittings.

(4) *Threads.* Threads on all fittings shall be American (national) standard taper pipe thread or SAE standard sort dryseal taper pipe thread except that straight (nontapered) threads may be used on fittings having integral flanges and using gaskets for sealing. There shall not be less than four full threads in engagement in any fitting.

(5) *Drains and bottom fittings.* Drains and other bottom fittings shall not extend more than $\frac{3}{4}$ inch below the lowest part of the tank and shall be designed or guarded to minimize their being torn loose. All drain fittings shall be so designed and located as to permit complete drainage. The drain shall be located in a suitable flange or spud.

(6) *Fuel discharge line.* The fitting through which the fuel is drawn from the tank shall be located above the normal full line of the tank.

(7) *Excess flow valve.* When pressure devices are used to force fuel from the tank, means shall be provided to prevent the continued flow of fuel in the event the fuel feed line is broken.

(8) *Fill-pipe design.* The fill-pipe shall be designed and located so as to minimize the probability of its being torn loose in the event of an accident. The fill-pipe and vents on any fuel tank having a total fuel capacity in excess of twenty-five gallons shall be so designed and constructed as to permit filling at a rate of at least twenty gallons per minute without spillage.

(9) *Air vent.* Every fuel tank shall be equipped with an air vent of a nonspill type (ball check or equivalent). The air vent may be mounted separately or combined with the filler cap or safety vent.

(10) *Safety vents, fusible.* Side-mounted fuel tanks having a total capacity in excess of twenty-five gallons shall be provided with a fusible safety vent or vents which shall be so designed as to limit the pressure rise in the tank under any fire condition to a maximum of fifty pounds per square inch gauge. The vent area shall be sufficient to prevent a rise in pressure in the tank of more than ten percent of the release pressure of the safety vent or vents when the tank is subjected to a fire of any magnitude. If but one fusible safety vent is provided, it shall be located in the top of the tank; if more than one fusible

safety vent is provided, at least one shall be in the top of the tank.

(11) All fuel tanks having a fuel capacity in excess of twenty-five gallons shall be provided with means of relieving pressure in the tank due to fire before such pressure would result in the failure of the body, seams, or any bottom opening in the tank.

g. Liquid fuel tank capacity markings. The tank shall be marked with its liquid capacity and shall be provided with means to indicate that it shall not be filled to more than ninety-five percent of its total capacity.

h. Liquid fuel tank identity markings. Each tank shall be marked to identify its manufacturer and to indicate the approximate date of manufacture by lot number or otherwise.

i. Liquid fuel tank installation.

(1) *General requirement.* The tank shall be mounted in accordance with the best commercial practice.

(2) *Location of fill-pipe.* The nozzle opening in the fill-pipe shall be outside the cab or body and must be so located as to minimize the likelihood of spillage of fuel during the filling process on the exhaust system or battery.

j. Liquid fuel tank tests.

(1) *Drop test on corner of tank.* The tank when filled with water equal in weight to that of its fuel capacity shall withstand without leakage a drop of thirty feet falling so as to strike squarely on one corner on concrete or equivalent surface which shall not rupture under the impact. The fill-pipe and cap, fuel gauge sending device, and the air intake and safety vents shall not leak more than one ounce of water per minute as a result of this test.

(2) *Drop test on fill-pipe.* The tank when filled with water equal in weight to that of its fuel capacity shall withstand without leakage a drop of ten feet falling so as to strike squarely on the fill-pipe on concrete or equivalent surface which shall not rupture under the impact. The fill-pipe or cap shall not leak more than one ounce of water per minute as a result of this test.

(3) *Safety vent test.* The safety vent, or vents, shall limit the rise in internal pressure in the tank to a maximum of fifty pounds per square inch gauge when the tank is filled to $\frac{3}{4}$ of rated capacity with standard fuel and placed in inverted position with the fuel feed outlet connection plugged when an enveloping flame is applied to the tank with sufficient intensity to produce an internal fuel temperature rise of 6° to 8° F. per minute starting from a fuel temperature of 50° to 80° F. Neither the tank, fill-pipe, fuel gauge, air intake vent nor any other opening except blown fusible plugs shall leak more than one ounce of fuel per minute after having been subjected to these conditions. Other types of tests or calculations may be employed to determine com-

pliance with this requirement if a comparable result is obtained.

(4) *Rupture test.* The tank and all appurtenances including the fill-pipe, cap, fuel gauge, and air intake vent shall withstand without rupture an internal hydrostatic pressure of 150 percent of the maximum at which the safety vent is required to release.

(5) *Spillage test.* At ordinary room temperature the tank when filled to capacity with its normal fuel and turned through an angle of 150 degrees from its normal position, with outlet pipe plugged, shall not spill or leak fuel at a rate greater than one ounce per minute. The fill-pipe, cap, fuel gauge outlet, air intake vent, safety vent, and any other openings shall withstand this test.

k. Liquid fuel tank certificates. Every gasoline fuel tank designed and constructed to comply with these requirements shall be plainly and permanently marked with the date of manufacture and a certification of the manufacturer that it complies with such requirements.

2.5(2) Liquefied petroleum gas fuel systems. Every motor vehicle utilizing liquefied petroleum gas for any purpose shall be equipped with a fuel system, being utilized for such purpose, which complies with Division IV, June 1959 edition of the "Standards for the Storage and Handling of Liquefied Petroleum Gas" of the National Fire Protection Association, 60 Batterymarch Street, Boston 10, Massachusetts, provided, however, that such fuel systems installed on motor vehicles prior to the effective date of this order shall comply with the "Standards for the Storage and Handling of Liquefied Petroleum Gas" of the National Fire Protection Association, as published in the 1951 edition, or such subsequent edition of the "Standards for the Storage and Handling of Liquefied Petroleum Gas" of the National Fire Protection Association, in effect at the time of such installation; provided further, however, that in any case compliance with the 1959 edition shall be deemed to be permissible. This section, in every case, requires the marking of the container in such fuel system to indicate compliance with the standard as provided herein.

2.6(325) T.VII Coupling devices and towing methods.

2.6(1) Coupling devices and towing methods, except for driveaway-towaway operations.

a. Fifth wheel mounting. The lower half of every fifth wheel mounted on any truck tractor or dolly shall be securely affixed to the frame thereof by U-bolts of adequate size, securely tightened, or by other means providing at least equivalent security. Such U-bolts shall not be of welded construction. The installation shall be such as not to cause cracking, warping, or deformation of the frame. Adequate means shall be provided positively to prevent the shifting of the lower half of a fifth wheel on the frame to which it is attached.

b. Fifth wheel parts, securing. The upper half of every fifth wheel shall be fastened to the motor vehicle with at least the security required for the securing of the lower half to a truck tractor or dolly.

c. Fifth wheel locking. Locking means shall be provided in every fifth wheel mechanism, including adapters when used, so that the upper and lower halves may not be separated without the operation of a positive manual release. A release mechanism operated by the driver from the cab shall be deemed to meet this requirement. On fifth wheels designed and constructed as to be readily separable, the fifth wheel locking device shall apply automatically on coupling for any motor vehicle the date of manufacture of which is subsequent to December 31, 1952.

d. Tow bar. Every trailer shall be equipped with a tow bar and means of attaching the tow bar to the towing and towed units which shall be structurally adequate for any weight drawn, properly and securely mounted, without excessive slack but with sufficient play to allow for universal action of the connection, and provided with a suitable locking means to prevent accidental separation of the towed and towing motor vehicle. The mounting of the trailer hitch (pintle-eye or equivalent mechanism) on the towing motor vehicle shall include sufficient reinforcement or bracing of the frame to provide sufficient strength and rigidity and to prevent undue distortion of the frame.

e. Tracking. Coupling devices shall be so designed, constructed, and installed, and the vehicles in the combination shall be so designed and constructed, as to insure that any vehicle or vehicles being towed on level, smooth, paved surface will follow in the path of the towing vehicle without shifting or swerving from side to side over three inches to each side of the path of the towing vehicle when it is moving in a straight line.

f. Safety chains. Every trailer shall be coupled with a safety chain or chains (stay chains or cables) directly to the frame of the motor vehicle by which it is to be towed. Attachment to the pintle hook will not meet this requirement. No more slack shall be left in safety chains or cables than shall be necessary to permit proper turning. Chains or cables shall be so connected to the towed and towing vehicle and to the tow bar as to prevent the tow bar from dropping to the ground in the event the tow bar fails. The means of attachment to both the towing and towed vehicles shall be capable of developing the full capacity of the safety chains or cables. Each chain or cable shall have an ultimate strength at least equal to the gross weight of the trailer being towed. Every trailer and every dolly used to convert a semitrailer to a trailer shall be equipped with two safety chains or cables; the points of attachment of which to the frame or axle of the full trailer dolly shall be not less than forty-eight inches apart,

or as near thereto as the configuration of the frame or axle permits.

g. Location of lower half of fifth wheel. The lower half of every fifth wheel shall be so located that, for any condition of loading, the relationship of position of king pin to the rear axle or axles of the towing motor vehicle results in proper distribution of the total gross weight of the motor vehicles to the axles and does not unduly interfere with the steering, braking, or maneuvering of the towing motor vehicle, or otherwise contribute to the unsafe operation of the motor vehicles comprising the combination.

h. Location of upper half of fifth wheel. The upper half of every fifth wheel shall be so located as to accomplish proper distribution of weight to the axles and safe movement of the combination of motor vehicles in all turning maneuvers.

2.6(2) Coupling devices and towing methods, driveaway-towaway operations.

a. Number in combination. No more than two saddle-mounts may be used in any combination. No more than one motor vehicle shall be towed by tow bar.

b. Bumper tow bars on vehicles prohibited. Tow bars of the type which depend upon the bumpers as a means of transmitting forces between the vehicle shall not be used.

(1) Tow bars, structural adequacy and mounting. Every tow bar shall be structurally adequate and properly installed and maintained.

(2) Tracking. The tow bar shall be so designed, constructed, maintained, and mounted as to cause the towed vehicle to follow substantially in the path of the towing vehicle. Tow bars of such design or in such condition as to permit the towed vehicle to deviate more than three inches to either side of the path of a towing vehicle moving in a straight line are prohibited.

2.7(325) T.VII Heaters.

2.7(1) On every motor vehicle, every heater shall comply with the following requirements:

a. Definition. "Heater" means any device or assembly of devices or appliances used to heat the interior of any motor vehicle.

b. Prohibited types of heaters. The installation or use of the following types of heaters is prohibited:

(1) Exhaust heaters. Any type of exhaust heater in which the engine exhaust gases are conducted into or through any space occupied by persons or any heater which conducts engine compartment air into any such space.

(2) Unenclosed flame heaters. Any type of heater employing a flame which is not fully enclosed, except that such heaters are not prohibited when used for heating the cargo of tank motor vehicles.

(3) Heaters permitting fuel leakage. Any type of heater from the burner of which

there could be spillage or leakage of fuel upon the tilting or overturning of the vehicle in which it is mounted.

(4) Heaters permitting air contamination. Any heater taking air, heated or to be heated, from the engine compartment or from direct contact with any portion of the exhaust system; or any heater taking air in ducts from the outside atmosphere to be conveyed through the engine compartment, unless said ducts are so constructed and installed as to prevent contamination of the air so conveyed by exhaust or engine compartment gases.

2.8(325) T.VII Defrosting device. Every bus, truck, and truck tractor shall be equipped with a device or other means, not manually operated, for preventing or removing such obstructions to the driver's view: Provided, however, that this section shall not apply in driveaway-towaway operations when the driven vehicle is a part of the shipment being delivered.

2.9(325) T.VII Rear-vision mirrors. Every bus, truck, and truck tractor shall be equipped with two rear mirrors, one at each side firmly attached to the outside of the motor vehicle and so located as to reflect to the driver a view of the highway to the rear along both sides of the vehicle: Provided, however, that only one outside mirror shall be required, which shall be at the driver's side, on trucks which are so constructed that the driver has a view to the rear by means of interior mirror: And provided further, that in driveaway-towaway operations the driven vehicle shall have at least one mirror furnishing a clear view to the rear.

2.10(325) T.VII Speedometer. Every bus, truck, and truck tractor shall be equipped with a speedometer indicating vehicle speed in miles per hour, which shall be operative with reasonable accuracy; however, this requirement shall not apply to any driven vehicle which is part of a shipment being delivered in a driveaway-towaway operation if such driven vehicle is equipped with an effective means of limiting its maximum speed to forty-five miles per hour or to any towed vehicle.

2.11(325) T.VII Exhaust system location. No part of the exhaust system of any motor vehicle shall be so located as would be likely to result in burning, charring, or damaging the electrical wiring, the fuel supply, or any combustible part of the motor vehicle. The exhaust system of every bus shall discharge to the atmosphere at or within six inches forward of the rear-most part of the bus. The exhaust system of every truck and truck tractor shall discharge to the atmosphere at a location to the rear of the cab or, if the exhaust projects above the cab, at a location near the rear of the cab. Any defects in the manifold or exhaust system causing exhaust gases to be emitted at other than proper exhaust point shall be corrected immediately.

2.12(325) T.VII Floors. The flooring in all motor vehicles shall be substantially con-

structed, free of unnecessary holes and openings, and shall be maintained so as to minimize the entrance of fumes, exhaust gases or fire. Floors shall not be permeated with oil or gasoline, and shall have the interior surface in safe condition.

2.13(325)T.VII Protection against shifting cargo. Carrying cargo such as beams, pipes, sheet steel, and heavy rolls, the nature of which is such that the shifting thereof due to rapid deceleration or accident would be likely to result in penetration or crushing of the driver's compartment must, in addition to having the load securely fastened or braced, be provided with header boards or similar devices of sufficient strength to prevent such shifting and penetration. All motor vehicles shall be

so constructed or be equipped with adequate cargo fastening devices so that the load will not shift so as to cause the driver to lose control while traversing any curve on a highway or while making a turn at any urban intersection.

2.14(325)T.VII Recapped or regrooved tires. Recapped tires or regrooved tires may not be used on the steering axle or axles of any bus, truck or truck tractor.

2.15(325)T.VII Special tires. Special use tires and tires commonly known as piggy-back trailer tires or tires manufactured for specific type short haul operations shall not be used on any bus, truck or truck tractor, trailer or semi-trailer engaged in over-the-road operation.

[Filed July 28, 1966]

PUBLIC SAFETY PEACE OFFICERS' RETIREMENT SYSTEM TRUSTEES

CHAPTER 1 RETIREMENT AND BENEFIT PROCEDURE

1.1(97A) Computation of the average final compensation shall be made using the salary stated for the rank held by the member for the five years immediately preceding retirement or death. Overtime compensation if any and authorized periods without pay shall not be considered in this computation.

1.2(97A) Age at retirement for computation of annuity shall mean age at the nearest birthday, however, the age of qualification for benefits under chapter 97A shall mean the age on last birthday.

1.3(97A) In the event of retirement on accidental disability before age fifty-five, the age shall be advanced three years for computation of the annuity. For accidental disability age fifty-five and later and for ordinary disability the age shall not be so advanced.

1.4(97A) Accidental disability may be granted by the board on the basis of under age fifty-five provided that:

1.4(1) Application was on file before the applicant attained age of fifty-five.

1.4(2) Applicant has not been refused disability on the application. If so, a new application must be filed.

1.4(3) The fact that processing of an application causes such a lapse of time that the applicant passes age fifty-five shall not be an impediment of qualifying for accidental disability two-thirds.

1.5(97A) If an active member's widow should remarry, the widow's benefit will continue to be paid to the guardian of any child for his benefit so long as said child remains under age eighteen. If the amount to be received for the child or children will exceed

\$1,000.00 a conservator must be named by the court. This is in addition to the child's regular benefit.

1.6(97A) The escalation of benefits authorized in section 97A.6(15) "a" be computed using two different methods. (Forms R1 through R10)

1.7(97A) Date of retirement shall mean the first day on retirement and not the last day on duty.

1.8(97A) In the event of payment of workmen's compensation benefits on account of disability or death for which benefits are payable under chapter 97A, the retirement or other benefit shall be adjusted by the actuarial equivalent of the total workmen's compensation. This is in lieu of causing the beneficiary to repay the workmen's compensation directly.

1.9(97A) Errors in payments to beneficiaries when discovered shall be adjusted in accordance with section 97A.13, Code of Iowa. This shall be construed to mean that the total under or over payments shall be commuted to monthly income using the current annuity table and at the beneficiary's age at the nearest birthday at the time of correction. In the event that the error involves a child or children, the monthly benefit shall be adjusted over the balance of the child or children's eligibility, however, if the child or children are no longer on the rolls due to having attained age eighteen, a lump sum settlement shall be made. Errors referred to in this rule shall be adjusted only after presentation to and approval by the board.

1.10(97A) As soon as possible after the close of each calendar year, a statement of account shall be furnished to each active member which must include the following information:

Balance in the annuity savings fund at the beginning of the year.

Contribution for the year.

Interest additions for the year.

Balance in the annuity savings fund at the year end.

At the same time as above a form 1099 shall be prepared for each person who received benefits and any other person who has ceased to be a member during the year. The forms 1099 must detail the following information:

Total pension paid during the year.

Total refund of contribution during the year.

Total interest paid during the year.

The current pamphlets dealing with retirement and sick pay benefits should be obtained from internal revenue service and mailed with all forms 1099.

1.11(97A) When a member retires, if the retirement date requested, and approved by the board is before the expiration of accrued vacation time, the member shall receive vacation pay in addition to the retirement benefit for the vacation period.

1.12(97A) Initial benefit for a child specified in section 97A.6(8) "f", (13) "a", "b", is ruled by this board to be six percent of the monthly salary of a senior patrolman.

1.13(97A) If a member enters the armed services of the United States or its allies under section 97A.9 and fails to return as provided in said section the following shall govern.

1.13(1) When a request is received for payment of contributions and interest from the annuity savings fund, payment of the contributions with interest computed to the date of payment shall be made unless the period of absence exceeds four years.

1.13(2) If the period of absence exceeds four years, section 97A.3(2) shall apply and interest shall be computed for a four-year period only.

1.14(97A) The minimum payment of \$50.00 per month authorized in section 97A.6(8) "b" is a minimum only and the recomputation authorized in section 97A.6(15) "a" shall be made using correct original benefit and not the \$50.00 minimum. The benefit payable shall be the \$50.00 minimum until the recomputed benefit exceeds \$50.00 at which time the recomputed benefit shall be paid.

1.15(97A) Applications for retirement shall be made not more than ninety nor less than thirty days in advance of the date of retirement, with election for one-hundred percent refund, fifty percent refund or no refund of member's contribution. Such election when received by the board shall be final and irrevocable.

1.16(97A) The following books of account shall be maintained by the secretary.

1.16(1) Self-balancing combination journal recording all receipts, disbursements and necessary adjustments.

1.16(2) Self-balancing ledger of control accounts.

1.16(3) Subsidiary ledger of the annuity savings fund.

1.16(4) Schedules at the close of the year which shall detail all control accounts except:

a. Pension reserve account.

b. Pension accumulation account.

c. Annuity reserve account.

1.17(97A) Computation of retirement benefits for a partial month shall be on the actual number of days in the month, i.e., monthly benefits divided by the number of days in the month multiplied by the number of days due.

1.18(97A) Section 97A.6(13) of the Code applies to the widow and children only if the widow was married to the deceased pensioner at or before the time of his retirement and the children are the natural children of the deceased pensioner or were legally adopted at or before the time of his retirement.

1.19(97A) It is hereby ruled by the board of trustees that under section 97A.4, eleven months of service in any year shall be equivalent to one year of service, however, in no case should a member receive more than one year of service credit for each twelve-month period.

1.20(97A) The official annuity table to be used in computation of annuities due under the provisions of chapter 97A shall be the 1951 Group Annuity Table with four percent interest and ages retrogressed one year effective January 1, 1970.

1.21(97A) In the event a member is retired before attaining five years of service, his average final compensation shall be the total of his earnable compensation from the date he was sworn into service divided by the number of months of service.

1.22(97A) The secretary shall present to the board at each regular meeting the last two abstracts of benefits with a detailed reconciliation between the two totals.

1.23(97A) The secretary shall reconcile the cash account as soon as possible after the close of the month, and after deducting \$5,000.00 report the book balance to the investment counselor in the office of the treasurer of state as available to be invested.

1.24(97A) Application for benefits under chapter 97A shall be made on forms R15 and R16 as the circumstances require. No benefit will be granted if this requirement is not met except for the return of contribution in the case of resignation, the request may be submitted in letter form which must include written approval of the proper division chief showing the date of termination.

1.25(97A) Upon a receipt by the secretary of an application for benefits other than resignation of member form R11 through R14 as needed will be delivered to the accounting section of the department of public safety. The

accounting section will complete the certification of salary stated on the department payroll. Upon receipt of the certification, the secretary will proceed to compute the retirement allowance.

1.26(97A) In the event of the death of a member, the date of death will be considered to be the last day on the payroll for earned compensation or on pension and the next day following will be the first day for the widow's and children's benefit. Accrued vacation pay will be paid in addition to the widow's and children's benefits.

1.27(97A) When the widow of a deceased active member is to receive an annuity payment from the member's contributions, the age

of the widow at her nearest birthday shall govern. The computation shall be the widow's birth date subtracted from the first date that widow's benefits begin to accrue.

1.28(97A) Age referred to in section 97A.8 (1) "a" shall mean the age at the nearest birthday on the date when the individual becomes a member of Peace Officers' Retirement, Accident and Disability System. The secretary to the board shall furnish the birth date and age to be used by the payroll department of the department of public safety in the case of any additions to the membership.

These rules are intended to implement section 97A.5(4) of the Code.

[Filed December 9, 1970]

REAL ESTATE COMMISSION

CHAPTER 1

BROKERS AND SALESMEN

1.1(117) Conduct of examinations. All examinations for licenses as real estate brokers or salesmen shall be conducted on the Thursday preceding the second Tuesday of the months of February, March, May, July, September and November by the commission or its authorized representative in the State Capitol Building, Des Moines, Iowa, or such other place as designated by the commission.

1.2(117) Refund of fee. If for any reason an applicant fails to qualify for a license, the fee submitted with his application shall not be refunded.

1.3(117) Limited filing period. An applicant is required to take the examination prescribed by the commission on the date of the next scheduled examination following the date of filing the application. This requirement may be waived by the commission if satisfactory evidence is presented by the applicant showing that extenuating circumstances prevented compliance.

1.4(117) Reapplying after failure. An applicant who fails to qualify for a license is prohibited by law from reapplying for the same or a higher status until six months have elapsed from the date of the last rejection.

1.5(117) Listing contract termination. The use of a listing contract which does not have a definite termination will be considered as detrimental to the public interest.

1.6(117) Filing a formal complaint. A formal complaint against a licensee must be prepared and signed in triplicate on forms approved by the commission.

1.7(117) Renewal procedure following expiration. All licenses expire as of December 31 of the year of issuance. A licensee who fails to make proper application for renewal prior to expiration will be required to make an

original application in which he must certify under oath that he has not acted in the capacity of a real estate broker or salesman during the time that he has not had a license.

1.8(117) Salesman's license limited. The holder of a real estate salesman's license may not advertise to buy, sell, rent or exchange real estate without including in the advertisement the name of his employer.

1.9(117) Broker acting as buyer. A broker shall not buy for himself either directly or indirectly property listed with him, nor shall he acquire any interest therein without first making his true position clear to the owner. Satisfactory proof of this fact must be produced by the broker upon request of the commission.

1.10(117) Examinations passed by commission. The commission shall pass upon the examination papers of applicants for either broker's or salesman's license.

1.11(117) Conversion of licenses. A broker's license cannot be converted to a salesman's license or vice versa.

1.12(117) Commission controversies. The commission is not authorized by law nor will it consider or conduct hearings involving disputes over fees or commissions between cooperating brokers, brokers and salesmen, and other brokers.

1.13(117) Qualifying a firm. All members of a partnership or officers of a corporation or association who are actively engaged in the real estate brokerage business must qualify and obtain a broker's license before the firm itself can obtain a license.

After a partnership, corporation or association is licensed any new member, or officer, actively engaged in the real estate brokerage business, must qualify for a real estate license as required in 117.15 of the Code.

1.14(117) Refunds to purchaser. When for any reason the owner fails or is unable to consummate the deal, the broker has no right to

any portion of the money deposited with him by the purchaser, even though the commission is earned. The money must be returned to the purchaser and the broker should look to the owner for his compensation.

1.15(117) Lotteries prohibited. Lotteries and schemes of sales involving selling of certificates, chances, or other devices, whereby the purchaser is to receive property to be selected in an order to be determined by chance, or by some means other than the order of prior sale, or whereby property more or less valuable will be secured according to chance, or the amount of sales made, or whereby the price will depend upon chance, or the amount of sales made, whereby the buyer may or may not receive any property, are declared to be methods by reason of which the public interests are endangered.

1.16(117) Signs on property. Placing a sign on any property offering it for sale, rent, or lease without the consent of the owner shall be held as against the best interests of the general public.

1.17(117) Regular and called meetings of the commission. Regular meetings of the commission shall be held in the offices of the commission in the state capitol or at such other place in or out of the city of Des Moines, Iowa, as designated by the commission on the Friday of the following week of the date of each monthly examination. Special meetings when deemed necessary may be called by the director of the real estate commission, who shall set the time and place of such meeting.

1.18(117) Broker required to furnish progress report. At the expiration of thirty days after an offer to buy has been made by a buyer and accepted by a seller, either party may demand and the broker shall furnish a detailed statement showing the current status of the transaction. On demand by either party the broker shall furnish a detailed current statement on thirty-day intervals thereafter until the transaction is closed.

1.19(117) Enforcing a protective clause. To enforce a protective clause beyond the expiration of an exclusive listing contract, the broker must furnish to the owner prior to the expiration the names and addresses of all persons to whom the property was presented during the active term of the listing.

1.20(117) Offering of prizes. The offering of prizes or anything of value as an inducement to buy or sell real estate shall be considered payment of a commission to a person who is not a licensed broker or salesman under the provisions of this chapter and a violation thereof.

1.21(117) Part-time brokers or broker-salesman. A duly licensed broker whose principal business is other than that of a real estate broker, or one who operates as a salesman for another duly licensed broker, may not sponsor a salesman for his twelve-month apprenticeship period.

[Filed May 25, 1953; amended June 11, 1953, May 31, 1957, January 15, 1963, May 10, 1966, July 13, 1967]

RECIPROCITY BOARD

CHAPTER 1

INTERSTATE OPERATION OF VEHICLES

1.1(326) Trip-leased vehicles. The reciprocal or proration agreements negotiated by the Iowa reciprocity board on behalf of the state of Iowa extend benefits to leased vehicles on the basis of the residence of the lessee with the exception of household goods carriers. Theoretically, the state of Iowa could require a prorate carrier to file a supplemental application to include any vehicles leased even though the duration of the lease was for a shorter period of time than thirty days. The Iowa reciprocity board has broad statutory authority to negotiate agreements with such conditions, restrictions, and privileges or lack of them as the board might deem advisable. To avoid undue restriction of interstate and intrastate commerce, the board has developed the following policy with respect to restrictions on single trip-lease operations.

1.1(1) Prior to a single trip-lease movement of a commercial vehicle (tractor, truck, or semitrailer) by a carrier who has prorated his fleet, the lessee must complete an Iowa Trip-Lease Identification Card if:

a. The leased vehicle is not registered fully in Iowa or if;

b. The leased vehicle has not already been prorated in Iowa at a percent equal to or greater than the percent for which the lessee's fleet has been prorated.

1.1(2) The Iowa Trip-Lease Identification Card is obtained from the Iowa reciprocity board. The applicant must estimate his needs in advance and secure the cards necessary to comply with these requirements. There is a charge of one dollar for each set of identification cards. No expiration date is shown on the card, so the applicant need not hesitate to purchase same in advance of need.

1.1(3) At the close of each calendar quarter the carrier is required to file a single trip mileage report, and at that time the carrier is billed a prorate fee for each trip. The fee due Iowa for each single trip lease is computed by dividing the single trip Iowa miles by the average annual miles operated by the lessee's vehicles in the compact states during the base period multiplied by the full annual Iowa registration fee for the vehicle leased. The Iowa reciprocity board makes the necessary

adjustment when the leased vehicle has already been prorated with Iowa at a lower percent. Under no circumstances is the carrier permitted to trip lease a vehicle owned or under a lease of thirty days duration or longer to the lessee.

The Iowa carrier who has not registered his vehicles on a prorate basis is permitted to trip lease any vehicle fully licensed in Iowa or prorated with Iowa without carrying the Iowa trip-lease identification. If the vehicle being operated on a trip-lease basis is registered in another state and has not been prorated with Iowa, the following requirements must be met:

a. There must be documentary evidence that the vehicle is being operated pursuant to a trip-lease arrangement.

b. The vehicle must be registered in the state of residence of the registered owner.

c. State of registration must be a state with whom Iowa has reciprocity.

d. If the vehicle is a truck or tractor having a laden gross weight in excess of twelve thousand pounds, the vehicle must be identified with an Iowa reciprocity permit.

e. The vehicle must be "headed" towards its home state.

1.1(4) The nonresident carrier who is not subject to prorate registration in Iowa is permitted to trip lease any vehicle fully licensed in Iowa or prorated with Iowa without carrying the Iowa trip-lease identification. If the vehicle so operated is registered outside Iowa and has not been prorated with Iowa, the following requirements must be met:

a. There must be documentary evidence that the vehicle is being operated pursuant to a trip lease arrangement.

b. The vehicle must be registered in the state of residence of the registered owner.

c. State of registration must be a state with whom Iowa has reciprocity.

d. If the vehicle is a truck or tractor having a laden gross weight in excess of twelve thousand pounds, the vehicle must be identified with an Iowa reciprocity permit.

e. The vehicle must be "headed" towards its home state.

1.2(326) Restrictions on trailer interchange and trailer interline. The prorate carrier may apply for the privilege of interchange or interline of trailers by completing the appropriate Iowa form. To qualify for this privilege the applicant must certify that he has included all his trailers (owned or under permanent lease) in his Iowa prorate registration application; and that if any trailers are added to the fleet during the registration year that these additional trailers will also be prorated with Iowa. In addition, the applicant must prorate at least one trailer for each tractor to qualify for the privilege of trailer interchange or interline or both.

1.2(1) The privilege will not extend to any trailer owned or under permanent lease to a

carrier who has qualified as a prorate fleet operator in Iowa for the current registration year unless that trailer is carrying the proper evidence of its prorate registration in Iowa.

1.2(2) The privilege will not extend to any trailer owned or under permanent lease to the nonprorate carrier unless the vehicle is properly registered in a state with whom Iowa has reciprocity. The vehicle must be registered in the state of residence of the owner.

1.2(3) The privilege will not extend to any trailer for which there is not documentary evidence displayed of a bona fide interchange or interline.

The prorate carrier who has qualified for this privilege is issued Iowa registration receipts or cab cards for its power units stamped "Interchange."

1.2(4) An operation by a qualified carrier of an interchanged trailer will be permitted if the documentary evidence contained in the interchange agreement, between carriers, indicates that the trailer "traded" is properly registered in Iowa.

1.2(5) An operation by a qualified carrier of an interlined trailer will be permitted if the registration on the trailer is from the state of residence of the owner of the trailer and from a state with which Iowa has reciprocity. The load must be a through load having originated with the owner of the trailer if the movement is in the direction away from the home state of the trailer owner and state of registration. Any subsequent movements of the trailer regardless of load must be in the general direction back toward the home state of the owner of the trailer.

1.3(326) Iowa temporary registrations. To facilitate the movement of vehicles in interstate or intrastate commerce by the carrier who has registered his vehicles on a prorate basis, Iowa issues the Iowa temporary proration registration which may be completed by the carrier at the time the vehicle is added to the fleet whether by lease or by purchase. This method was devised to reduce the operation cost of the carrier who had prior thereto found it necessary to telephone the office for telegraphic authority. The Iowa temporary proration registration is purchased in advance for one dollar each from the Iowa reciprocity board and must be completed in triplicate—one copy to be retained by the carrier, one copy to be carried in the cab of the vehicle, and the third copy to be mailed to the Iowa reciprocity board. These temporary proration registrations are valid for a period of fifteen days and are not renewable. These registrations are issued with the understanding that the carrier will prepare immediately a supplemental proration registration application to qualify the vehicle in question.

1.4(326) Iowa reciprocity permits. The non-resident carrier who does not qualify as a fleet operator and is not subject to proration

is required to have an Iowa reciprocity permit on any truck or tractor having a combined laden gross weight in excess of twelve thousand pounds when operated interstate on the Iowa highways. In addition, the carrier who does not qualify as a fleet operator but whose vehicle or vehicles is licensed in one of the states with which Iowa has prorate agreements is required to have an Iowa reciprocity permit on the trailing units as well as the power units. There is an annual fee of one dollar for each reciprocity permit. The vehicle covered by the reciprocity permit is permitted to engage only in interstate commerce in the state of Iowa. The vehicle which is being operated under reciprocity permit is not permitted to engage in intrastate commerce even though that movement might be simultaneous with the movement in interstate commerce.

The vehicle covered by the Iowa reciprocity permit is authorized to engage in interstate operation in Iowa provided the carrier has proper operating authority, as required, from the Iowa state commerce commission. The vehicle is not permitted to operate in Iowa at a greater weight than shown on his registration, and the vehicle cannot operate in Iowa on a license plate whereunder the registration is limited geographically, purposewise, or mileagewise.

1.5(326) Denial of reciprocal privileges. It is the policy of the Iowa reciprocity board to afford a carrier the opportunity to be heard prior to the withdrawal of any benefits or privileges granted by the state of Iowa pursuant to the Uniform Vehicle Proration and Rec-

iprocity Compact and the Midwest Vehicle Proration Compact. It is also the policy of the Iowa reciprocity board to afford a resident carrier the opportunity to be heard if the benefits or privileges granted pursuant to either compact agreement are withdrawn, in whole or in part, by a contracting state. The Iowa reciprocity board then determines if it should intercede on behalf of the carrier; however, such intercession is not mandatory.

1.6(326) Organizational data. The Iowa reciprocity board meets in regular session on the first Thursday of each month at 9:00 A.M. in the hearing room of the Iowa state commerce commission; however, the chairman or a majority of the members of the board may call a special meeting at any time. All meetings are open to the public. It is the policy of the board to require all individuals or groups or delegations to submit requests for hearings to the Iowa reciprocity board in writing fifteen days in advance of such hearing, stating fully the subject to be presented.

1.7(326) Policy with respect to allowance of credit. If a vehicle is deleted from the prorate fleet and replaced with a comparable unit, the unexpired registration fees paid to the state of Iowa on the deleted unit are to be applied to fees due Iowa on the replacement units. If the deleted unit is a leased vehicle, the carrier must complete a notarized certification that any unexpired registration fees paid by the lessor to the lessee have been refunded to the lessor prior to the request that credit for these fees be applied to a replacement unit.

[Filed January 15, 1963]

REGENTS, BOARD OF

ADMISSION REQUIREMENTS OF THE UNIVERSITY OF IOWA, THE IOWA STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY, AND THE UNIVERSITY OF NORTHERN IOWA

[Filed September 30, 1960]

[See prior amendments filed December 17, 1958; January 28, 1959; May 26, 1959; October 28, 1959 and September 15, 1959]

The state board of regents has adopted the following regulations governing admission of students to the three institutions:

I. Regulations common to the three institutions.

II. Supplemental specific regulations for each institution.

In addition each institution is expected to carry such other information in its catalogue as is necessary to make the admissions process operate within the framework of these regulations.

Amendments and changes in these regulations normally are proposed by the institutions to the Iowa committee on secondary schools and college relations, which examines the proposals and makes specific recommendations to

the state board of regents, empowered by law to establish the admissions requirements.

I. REGULATIONS COMMON TO THE THREE INSTITUTIONS

A. ADMISSION OF FRESHMAN STUDENTS

A student desiring admission must meet the requirements in this section and also any special requirements for the curriculum, school, or college of his choice.

He must submit a formal application for admission and must have the secondary school provide a certificate of high school credits, including a complete statement of the applicant's high school record, rank in class, scores on standardized tests, and certification of high school graduation. The applicant must also submit any other evidence such as a certificate of health that may be required by the individual institution of higher learning.

1. A graduate of an approved Iowa high school who has the proper subject-matter background, who is in the upper one-half of his graduating class, and who meets specific curricular requirements will generally be admitted upon certification of graduation, if he applies for admission.

A candidate who is not in the upper one-half of his graduating class may be required to take special examinations and may after a review of his entire record and at the discretion of the admissions officers: (1) Be admitted unconditionally, (2) be admitted on probation, (3) be required to enroll for a tryout period during a preceding summer session, or (4) be denied admission.

2. A graduate of an accredited high school in another state must meet at least the same standards as a graduate of an Iowa high school. The options for admission by probation or tryout enrollment may not be open to these students. Each college reserves the right to demand higher standards from graduates of out-of-state high schools.

3. A graduate of a nonapproved high school must submit all data as required above and in addition must take examinations which will demonstrate his general competence* to do successful college work.

4. An applicant who is not a high school graduate must submit all data required above insofar as it exists and must take examinations to demonstrate general competence* to do college work. Evidence of specific competence for admission to a given curriculum will also be required.

*Examinations for the determination of general competence to do college work are determined by the Iowa committee on secondary school and college relations and are comparable for all three state institutions. Competence established at one is acceptable at all three, but due to different specific curricular requirements, does not guarantee admission to either of the other two.

B. ADMISSION OF UNDERGRADUATE STUDENTS BY TRANSFER FROM OTHER COLLEGES

1. Students from accredited colleges and universities. Transcripts of record are given full value if coming from colleges or universities accredited by the North Central Association of Colleges and Secondary Schools or similar regional associations. For schools not regionally accredited the recommendations contained in the current issue of the Report of Credit Given by Educational Institutions published by the American Association of Collegiate Registrars and Admissions Officers will be followed.

a. Each applicant shall submit an official transcript bearing the original seal and signature of the official in charge of records from each college or university which the student has attended previously. The student will also submit any other records or letters which the college may require to support his application for admission.

b. A transfer applicant shall be expected to have maintained a "C" average (2.00 based on an "A" grade being 4 points) for all college work previously attempted and not be under suspension from the last college attended. Students who are not residents of Iowa may be expected to have maintained a 2.25 grade index.

c. A student who is below the above standard may be permitted to take entrance examinations. If the applicant successfully completes the examinations he may be admitted on probation.

d. In general transfer applicants under academic suspension from the last college attended will not be considered for admission during the period of suspension or if for an indefinite period, until six months have passed since the last date of attendance. When eligible for consideration the applicant will be considered as in "c" above.

e. A transfer applicant under disciplinary suspension will not be considered for admission until a clearance and a statement of the reason for suspension is filed from the previous college. When it becomes proper to consider an application from a student under suspension, the college must take into account the fact of the previous suspension in consideration of the application. An applicant granted admission under these circumstances will always be on probation and his admission subject to cancellation.

f. Applicants for admission by transfer who do not meet the standards may be denied.

g. Transfer credit from a junior college will not be accepted if that credit is earned after the total number of hours of credit accumulated by this student at all institutions attended exceeds one-half of the number of hours needed for the earning of the baccalaureate degree.

2. Students from nonaccredited colleges. A college may refuse to recognize credit from a nonaccredited college or may admit the applicant on a provisional basis and provide a means for the validation of some or all of the credit. The validation period shall not be less than one semester and will ordinarily be a full academic year. The college will specify to the student the terms of the validation process at the time of provisional admission. Each student from a nonaccredited college will be considered on his merits and his admission or rejection is at the discretion of the admissions officer.

C. APPLICATION DEADLINES

Applicants for admission must submit the required applications for admission and the necessary official transcripts and other required documents to the admissions officer of the appropriate college at least ten days prior to the beginning of orientation for the session for which the student is applying. Applications for admission from students who are required to take entrance examinations will not be considered unless the examinations can be completed at least five days before the beginning of orientation. This regulation may be waived by the admissions officer only for adequate reasons.

This regulation does not apply to the colleges of medicine and dentistry at the university and the college of veterinary medicine at the Iowa State University. Regulations ap-

plying to these are given in the following sections: IIA2; IIA6; IIB1e.

All new undergraduate students must complete the Iowa College Scholarship and Placement Tests or the equivalent as determined by the admissions officer before the beginning of orientation for the session in which the student first registers.

D. CLASSIFICATION OF RESIDENTS AND NONRESIDENTS FOR ADMISSION AND FEE PURPOSES

1. General. Students enrolling at one of the three state institutions shall be classified as resident or nonresident for admission, fee, and tuition purposes by the registrar. The decision shall be based upon information furnished by the student and all other relevant information. The registrar is authorized to require such written documents, affidavits, verifications, or other evidence as are deemed necessary to establish the domicile of a student, including proof of emancipation, adoption, award of custody, or appointment of a guardian. The burden of establishing that a student is exempt from paying the nonresident fee is upon the student.

For purposes of resident and nonresident classifications, the word "parents" as herein used shall include legal guardians or others standing in loco parentis in all cases where lawful custody of any applicant for admission has been awarded to persons other than actual parents.

2. Residence for tuition purposes. Regulations regarding residence for admission, fee and tuition payment are generally divided into two categories—those that apply to students who are minors and those that apply to students who are over twenty-one years of age. The requirements in these categories are different. Domicile within the state means adoption of the state as a fixed permanent home and involves personal presence within the state. The two categories are discussed in more detail below.

3. Students who are minors. The residence of a minor shall follow that of the parents at all times, except in extremely rare cases where emancipation can be proved beyond question. The residence of the father during his life, and after his death, the residence of the mother, is the residence of the unemancipated minor; but if the father and the mother have separate places of residence, the minor takes the residence of the parent with whom he lives or to whom he has been assigned by court order. The parents of a minor applying for admission will be considered residents of Iowa only if they have a domicile within the state at the time of the beginning of the semester, quarter or session in which the minor is first enrolled at Iowa State University or the state University of Iowa, or University of Northern Iowa, and if the parents establish such domicile for purposes other than to qualify their child for resident tuition.

A minor admitted before his parents have moved to Iowa may be reclassified as a resi-

dent at the beginning of the next semester or quarter in which the student is enrolled after his parents have a domicile in Iowa. A minor student whose parents move their residence from Iowa to a location outside of Iowa shall be considered to be a nonresident at the beginning of the next semester, quarter, or session in which the student is enrolled after the date of the parents removal from the state.

A minor under legal guardianship shall not be granted resident status if the primary purpose of the guardianship is to qualify the minor for resident tuition.

A minor living with and being supported by a relative or a friend who is a resident of Iowa, but not a minor's legal guardian, may be granted resident status if he has lived with the relative or friend at least three years prior to high school graduation.

4. Students over twenty-one years of age and married students under twenty-one years of age. A student twenty-one years of age or over and a married student under twenty-one years of age shall be classified as a resident if (1) the student's parents were residents of the state at the time such student reached majority or was married and the student is not domiciled in another state, or (2) who after marriage or reaching majority has established a bona fide residence in the state of Iowa by residing in the state for at least twelve consecutive months immediately preceding the beginning of the semester, quarter or session. Bona fide residence in Iowa means that the student is not in the state primarily to attend a college; that he is in the state for purposes other than to attempt to qualify for resident status.

Any nonresident student who reaches the age of twenty-one years or is married while under twenty-one years of age while a student at any school or college does not by virtue of such fact attain residence in this state for admission or tuition payment purposes.

5. General facts. The resident status for admission, fee, and tuition purposes of a married student shall usually be determined under these rules irrespective of the classification of the spouse. Married students under twenty-one years of age shall be considered to have attained legal age as of the date of their marriage.

Persons who are moved into the state as the result of military or civil orders from the government, or the minor children of such persons, are entitled to resident status. However, if the arrival of the parents is subsequent to the time of the beginning of the semester, quarter or session in which the minor child is first enrolled, nonresident tuition will be charged in all cases until the beginning of the next semester, quarter or session in which the student is enrolled.

Dependents of persons whose legal residence is permanently established in Iowa, who have

been classified as residents for tuition purposes may continue to be classified as residents so long as such residence is maintained, even though circumstances may require extended absence of said persons from the state. It is required that persons who claim an Iowa residence while living in another state or country will provide proof of the continual Iowa domicile such as (1) evidence that they have not acquired a domicile in another state, (2) they have maintained a continuous voting record in Iowa, and (3) they have filed regular Iowa income tax returns during their absence from the state.

Ownership of property in Iowa, or the payment of Iowa taxes, does not in itself establish residence.

A student from another state who has enrolled for a full program or substantially a full program in any type of educational institution will be presumed to be in Iowa primarily for educational purposes, and will be considered not to have established residence in Iowa. Continued residence in Iowa during vacation periods or occasional periods of interruption to the course of study does not of itself overcome the presumption.

All students not classified as resident students shall be classified as nonresidents for admission, fee and tuition purposes.

A student who willfully gives incorrect or misleading information to evade payment of the nonresident fees and tuition shall be subject to serious disciplinary action and must also pay the nonresident fee for each semester, quarter or session attended.

An alien who has entered the United States on an immigration visa and who has established a bona fide residence in Iowa by living in the state for at least twelve consecutive months immediately preceding the beginning of the semester, quarter or session may be eligible for resident classification providing he is in the state for purposes other than to attempt to qualify for resident status as a student.

Men in military service (except career servicemen) who listed Iowa as their residence prior to entering service and who, immediately upon release, return to Iowa to establish their residence or enter college, will be classified as residents unless their parents moved from the state while the individual was still a minor.

Change of classification from nonresident to resident will not be made retroactive beyond the semester, quarter, or session in which application for resident classification is made.

6. Review committee. The decision of the registrar on the residence of a student for admission, fee and tuition purposes may be appealed to a review committee. The finding of the review committee may be appealed to the board of regents.

[Filed December 17, 1958;
amended July 12, 1967]

II. SUPPLEMENTAL SPECIFIC REGULATIONS FOR EACH INSTITUTION

The following requirements are in addition to those given in section I above.

A. UNIVERSITY OF IOWA

All applicants for admission to any college of the University of Iowa must submit a formal application for admission with the required official transcripts and other supporting material as required to the dean of admissions and registrar. Students may not be registered until they have been issued an admission statement by the dean of admissions and registrar.

1.(262.9) College of business administration.

Applications for admission to the college of business administration should be submitted to the director of admissions.

Applicants are urged to apply as early as possible, since this will give the admissions committee more time to devote to each application. Closing dates for receiving applications will be announced well in advance of the opening date of any session.

For admission to the college of business administration an applicant must have—

a. Completed specific course work as prescribed by the faculty of the college.

b. Attained satisfactory scores on the university's required admission examinations.

c. Maintained a satisfactory grade-point average on all courses undertaken, and on all courses undertaken at the University of Iowa, and on all courses undertaken in business and economics.

Applications from students who have minor deficiencies in meeting grade-point requirements specified above will be reviewed by the admissions committee of the college, and upon favorable recommendation of the committee, such students may be granted conditional or probationary admissions.

Fulfillment of the minimal requirements listed above, however, does not assure admission to the college of business administration. From those applicants who meet the minimum requirements, the admissions committee will select the applicants who, in their judgment, appear to be best qualified.

[Filed March 23, 1964;
amended March 10, 1966]

2.(262.9) College of dentistry.

Address all inquiries regarding admission to the Director of Admissions and Registrar, University of Iowa.

Applicants are urged to apply as early as possible, since this will give the admissions committee more time to devote to each application. Closing dates for receiving applications will be announced well in advance of the opening date of any session.

Applicants for admission to dentistry are encouraged to complete a program leading to a baccalaureate degree before entering dentistry. Applicants should consider a combined program of liberal arts and dentistry which

would qualify them for a baccalaureate degree upon the completion of the freshman year in dentistry. Preference will be given to students who have the baccalaureate degree or who have completed the requirements for the degree in a combined program.

Fulfillment of the specific requirements for admission listed does not insure admission to the college of dentistry. From the applicants meeting the minimum requirements, the admissions committee will select the applicants who in their judgment appear to be best qualified for the study and practice of dentistry.

Each applicant must place on file in the office of the director of admissions the completed application form and an official transcript from each college attended.

The college work outlined below will suffice to meet the minimal academic requirements for admission to the college of dentistry.

The college curriculum must include at least three academic years of accredited work comprising not less than ninety-six semester hours and including specific required science courses as prescribed by the faculty of the college. Electives should be chosen so as to give the applicant a well-rounded educational background.

In order to meet minimum scholarship requirements the applicant should attain a cumulative grade-point average of 2.5. Since the quality of course work in pre-dental science is basic to success in dentistry, special consideration to such college work is given by the admissions committee. The grade-point average is based upon the University of Iowa's marking system in which a grade of "A" is equivalent to four points. Other marking systems will be evaluated by the office of admissions and the committee on admissions of the college of dentistry.

Applicants who have completed the requirements for admission to dentistry five or more years prior to seeking admission to this college of dentistry will be considered by the admissions committee only under exceptional conditions.

Applicants from those who are more than thirty years of age will be considered for acceptance only in exceptional cases.

Preference will be given to applicants who are residents of Iowa, but consideration will also be given to outstanding nonresidents.

Personal interviews will be required of applicants for admission to the college of dentistry. Applicants will be notified when they should appear for the required interviews with members of the admissions committee.

All applicants must complete the dental aptitude tests sponsored by the council on dental education of the American Dental Association. Tests are given three times annually. The University of Iowa is a testing center.

To facilitate early selection, applicants for admission to the college of dentistry are urged

to complete the aptitude test no later than October to enable the admissions committee to begin its selection in December.

Accepted applicants are required to make the required deposit within two weeks after notification of favorable action on their applications. This deposit is not refundable but is credited toward the first fee payment. The applicant who fails to make the deposit within the time specified forfeits his place in the entering class.

Applicants accepted for admission are required to submit a satisfactory physical examination report to the university student health service within two weeks following notification of acceptance.

All applicants must also complete, through student health service, an X-ray film of the chest and a successful vaccination against smallpox prior to registration.

ADVANCED STANDING

Applications for admission with advanced standing are handled as individual cases.

[Filed March 10, 1966]

3.(262.9) College of engineering.

Address all inquiries regarding admission to the Director of Admissions, University of Iowa, Iowa City, Iowa.

Closing dates for receiving applications will be announced well in advance of the opening date of any session.

ADMISSION OF FRESHMAN STUDENTS

The applicant must submit a formal application for admission and must have the secondary school provide a certificate of high school credits, including a complete statement of the applicant's high school record, rank in class, scores on standardized tests, and certification of high school graduation. The applicant must also submit any other evidence such as a certificate of health that may be required by this university.

Each applicant must have attained satisfactory scores on the university's required admission examinations, maintained a satisfactory cumulative grade-point average, achieved satisfactory rank in graduating class, and successfully completed all prerequisite courses. The university with the approval of the state board of regents shall establish and periodically review specific minimum requirements for admission to the college of engineering. Among the items to be so determined are test score, grade-point average, class rank and prerequisite courses. These specific determinations will be published in the university catalog.

From applicants who do not meet minimum admission requirements, the director of admissions may after a review of the applicant's record: (1) Admit unconditionally, (2) admit on probation, (3) require enrollment for a tryout period during a preceding summer session or (4) deny admission.

**ADMISSION OF UNDERGRADUATE STUDENTS
BY TRANSFER**

The applicant must submit a formal application and official transcript of college work. Each applicant should have:

a. Maintained satisfactory progress in mathematics.

b. Attained satisfactory scores on the university's required admission examinations.

c. Maintained a satisfactory cumulative grade-point average on all college work undertaken.

From applicants who do not meet recommended requirements, the director of admissions will review individual records and may offer probationary admission.

[Filed March 23, 1964; amended March 10, 1966]

4.(262.9) Graduate college.

Graduates of any college or university accredited by regional accrediting associations may if the academic record is satisfactory be admitted to the graduate college. Admission to the graduate college is not the equivalent of acceptance as a candidate for an advanced degree. Such acceptance is given usually after the completion in residence of work at the university and upon recommendation of the major department and approval by the dean of the graduate college. The acceptance of a student as a degree candidate is determined upon the merits of each individual case.

A student who is within four semester hours of having satisfied all the requirements for the bachelor's degree in the University of Iowa may be given a tentative admission to the graduate college.

5.(262.9) College of law. Address all inquiries concerning admission to the Director of Admissions, University of Iowa, Iowa City, Iowa. Beginning students may enter the college of law only in the fall semester. Except for good cause shown, applications for admission must be filed by May 1 preceding the fall semester in which the applicant wishes to enter.

To be considered for admission, an applicant should have attained a cumulative grade-point average of at least 2.3 on all college work undertaken. The grade-point average is based upon the University of Iowa's marking system in which a grade of "A" is equivalent to four points. Other marking systems will be evaluated by the office of admissions.

Applicants for admission must present a baccalaureate degree from an approved college or university prior to commencing work in the college of law.

Each applicant for admission must take the Law School Admission Test administered by the Educational Testing Service, Princeton, New Jersey, and have his score forwarded to the college of law. The test is given several times per year and may be taken at numerous locations in the United States and throughout the world. Applicants are urged to take the test in the fall or winter preceding the fall semester for which they are making applica-

tion. Except upon a showing acceptable to it, the admissions committee will not consider applications from students who fail to take the test prior to the June 1 preceding the fall semester in which they wish to enter.

Fulfillment of the specific requirements for admission listed above does not insure admission to the college of law. From the applicants meeting the minimum requirements, the admissions committee of the college of law will select those applicants who, in their judgment, appear to be best qualified for the study and practice of law. The law admissions committee may require personal interviews of applicants.

ADMISSION WITH ADVANCED STANDING

A transfer student may be eligible for admission if he (1) has attended a school approved by the Association of American Law Schools; (2) is in good standing at the time of his withdrawal (evidenced by a letter from the dean of the school from which he is transferring); (3) meets the admission requirements for beginning students; and (4) has done substantially above average work in the law school he attended. Where an applicant has completed more than one year of law study, advanced standing will be permitted only in exceptional cases. Applicants for admission with advanced standing should comply with the procedures required for admission to the first-year class.

[Filed May 22, 1964; amended September 18, 1964, December 14, 1966]

6.(262.9) College of medicine.

Address all inquiries regarding admission to the Director of Admissions and Registrar, University of Iowa.

Applicants are urged to apply as early as possible, since this will give the admissions committee more time to devote to each application. Closing dates for receiving applications will be announced well in advance of the opening date of any session.

Applications from those who are more than thirty years of age will be considered for acceptance only in exceptional cases.

Fulfillment of the specific requirements for admission listed below does not insure admission to the college of medicine. From the applicants meeting the specific requirements, the admissions committee of the college of medicine will select those applicants who in their judgment appear to be best qualified for the study and practice of medicine.

Prior to entrance an applicant must:

a. Have received the baccalaureate degree; or

b. Have completed three years of a combined baccalaureate-medicine curriculum which qualifies him to receive the baccalaureate degree on completion of the first year in medicine; or

c. Have completed three years of a baccalaureate program which includes the general graduation requirements of the college

of liberal arts of the University of Iowa for the combined baccalaureate degree.

Each applicant must place on file in the office of the director of admissions the completed application form and an official transcript from each college attended.

The college work as outlined below will suffice to meet the minimal academic requirements for admission to the college of medicine.

Applicants who have completed the baccalaureate degree and required courses five or more years prior to seeking admission to this college of medicine will be considered by the admissions committee only under exceptional conditions.

The college curriculum must include at least three years (equivalent to ninety-six semester hours) including specific required science courses as prescribed by the faculty of the college.

Students planning to study medicine should bear in mind that other college work is required in addition to prerequisite sciences because it offers an opportunity to secure a well-rounded education, which is of special importance to those entering the medical profession. In the selection of applicants, preference will be given to those who give evidence of having obtained such a broad education.

To be considered for admission, an applicant must have attained a grade-point average of at least 2.5 for all college work undertaken. As the quality of work in premedical science is very basic to success in medicine, special attention will be given by the admissions committee to grades in science. The grade-point average is based upon the University of Iowa's marking system in which a grade of "A" is equivalent to four points. Other marking systems will be evaluated by the office of admissions and the committee on admissions of the college of medicine.

Preference will be given to applicants with high scholastic standing who are residents of Iowa, and consideration will also be given to outstanding nonresidents. Applicants for admission are required to take the medical college admissions test which is administered for the Association of American Medical Colleges. Applicants are requested to complete this test in May or October of the year preceding that for which they are applying for admission. Students may make arrangements to apply for this examination through the university examination service, the University of Iowa.

Personal interviews will be required. Applicants will be contacted for the appointment for required interviews.

Applicants accepted for admissions are required to submit a satisfactory physical examination report to the university student health service within two weeks following notification of acceptance.

All applicants must also complete, through Student Health Service, an X-ray film of the chest and successful vaccination against smallpox prior to registration.

ADMISSION TO ADVANCED STANDING

If their work preparatory to entering a college of medicine would have met entrance requirements of this college, students from other approved medical colleges may be admitted to advanced standing according to the following conditions:

Only applicants of high scholastic standing will be considered.

They must present certificates showing that they have satisfactorily completed courses equivalent to those already pursued by the class they wish to enter.

The committee on admission to advanced standing will decide in each case whether examinations in the various subjects will be required.

Applications will be considered only upon receipt of a statement from the dean or registrar of the college from which the applicant comes, showing the actual amount of time the student has spent in the study of medicine, the courses taken, and the grades received, together with a statement of the work preparatory to entering upon the course in medicine.

No advanced standing will be granted to students from other than approved medical schools. Students may be granted subject credit upon recommendation of the head of the department concerned, for work taken in other than medical schools.

UNCLASSIFIED STUDENTS

Applicants for admission to the college of medicine who are not candidates for a degree but who desire to register for special subjects, will be admitted to any lecture or laboratory course only upon complying with all the regular requirements for admission to such course or by action of the faculty upon recommendation of the professor in charge of the course.

[Filed March 23, 1964; amended November 15, 1963, March 10, 1966]

7. College of nursing

Applicants for admission to the undergraduate program in nursing must present a minimum of thirty semester hours completed in an accredited liberal arts college, including satisfaction of the following minimum requirements:

Rhetoric—University of Iowa transfer applicants must have satisfied the rhetoric requirements of the college of liberal arts at the University of Iowa.

Applicants from other institutions may qualify by completing six semester hours of credit in English composition and two semester hours of credit in speech.

Mathematics—All applicants must have completed two and one-half units of mathematics at the secondary school level or scored at a satisfactory level on the mathematics battery of the American College Tests, or completed a college course in mathematics comparable to, or higher than intermediate algebra (22:2).

Chemistry—All applicants must have completed four semester hours of college credit in

inorganic chemistry. Applicants from the college of liberal arts at the University of Iowa should also complete a four-semester-hour course in organic and biochemistry. Applicants who transfer from other accredited colleges may, if necessary, complete the organic and biochemistry requirement after admission to the college of nursing.

All applicants are required to complete the American College Tests. Applicants who are graduates of associate degree or diploma programs of nursing must have successfully passed the examination for registered nurse licensure before admission to nursing courses.

To be considered for admission, an applicant should have attained a cumulative grade-point average of at least 2.2 on all college work undertaken. The grade-point average is based upon the marking system of the University of Iowa in which a grade of "A" is equivalent to four points. Other marking systems will be evaluated by the office of admissions.

Fulfillment of the specific requirements for admission listed above does not insure admission to the college of nursing. From the applicants meeting the minimum requirements, the admissions committee of the college of nursing will select those applicants who, in their judgment, appear to be best qualified.

The nursing admissions committee may require personal interviews of applicants.

Address all inquiries regarding admission to the Director of Admission, University of Iowa, Iowa City, Iowa. Applicants with no previous preparation in nursing may apply for admission to the college of nursing beginning July 1 of the year preceding their expected enrollment. Applicants with previous preparation in nursing will follow the same procedure except that they may be admitted either the first or second semester. The closing date for receiving applications shall be April 15 for first semester and November 15 for second semester.

[Filed July 18, 1962; amended July 22, 1965]

Practical Nursing Program

Applicants between the ages of 18 and 25 years are required to have completed a high school education or the equivalent. Applicants over 25 years of age must have completed a tenth grade education. Admission is based upon high school records, required academic and physical examinations, and interviews. As the number of applicants that can be accepted for this program is limited, the Admissions Committee will select the applicants that appear to be the best qualified for work as practical nurses.

8. College of pharmacy

General basis for admission

Fulfillment of the specific requirements for admission does not insure admission to the College of Pharmacy. From the applicants meeting the specific requirements, the Admissions Committee will select those applicants who in their judgment appear to be best qualified. Applicants for admission to Pharmacy

should have graduated from an approved high school or have an equivalent amount of training.

College work

The college work as outlined below will meet the minimum academic requirements for admission to the College of Pharmacy. The minimum should include thirty-two semester hours of college level work exclusive of credit in Military and Air Science and Physical Education. The thirty-two semester hours must include:

Communication Skills. Applicants must have demonstrated satisfactory achievement in Communication Skills according to the requirements of the College of Liberal Arts at the state University of Iowa. Applicants from other institutions may meet this requirement by presenting six semester hours of credit in English Composition and Rhetoric and two semester hours of credit in Speech or an eight-semester-hour year course in Communication Skills.

Inorganic Chemistry and Qualitative Analysis, eight semester hours.

College Mathematics, eight semester hours.

Physics or Zoology, eight semester hours.

Students from other institutions may substitute a comparable eight-semester-hour course in Biology in lieu of Zoology.

Military or Air Science (if available) 0-2 semester hours.

Students who present minor deficiencies in meeting the above requirements may be admitted to the College of Pharmacy upon the recommendation of the Dean of Admissions and the College of Pharmacy.

Scholarship and application deadline

To be considered for admission to the College of Pharmacy, students must have earned a 2.0 or C average on all collegiate work undertaken. The minimum grade-point average of 2.0 is based on the state University of Iowa's marking system in which the grade of "A" is equivalent to four points. Applications for admission and the required official transcripts should be filed before March 1 for the class to enter Pharmacy in September.

Required tests

Applicants for admission are required to take the American College Testing Program test.

Current requirements

Applicants who have completed work in a college of pharmacy accredited by the American Council on Pharmaceutical Education may if their college academic average is acceptable be admitted and granted advanced standing toward the degree of Bachelor of Science in Pharmacy.

9. College of liberal arts

Applicants for admission to Liberal Arts must meet the regulations that are common to the three state institutions in Iowa as listed in this bulletin as Part I, Sections A, B, and C.

10. College of education

Students at the University desiring professional work in Education are registered in the College of Liberal Arts or the Graduate College. Requirements for permission to take teacher-training courses are listed in the University Catalogue.

B. IOWA STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY

1. Undergraduate students

A minimum of one unit of algebra is required for admission to all curricula. A non-high school graduate, in addition to meeting standards in Section I above, must be at least 17 years of age and have an unqualified recommendation from his high school principal. Requirements for admission to the several Colleges are given below.

a. College of agriculture. A minimum of one and one-half units of algebra is required of students entering any four-year curriculum. In addition, the curricula in agricultural journalism, forestry, industrial education, and landscape architecture require one unit of geometry. Students who have not completed all of the required mathematics courses may take geometry or third semester algebra at Iowa State University. The requirements for admission to agricultural engineering are the same as for the college of engineering.

b. College of engineering. One unit of geometry and one and one-half units of algebra are required. Students who have not completed all of these courses may take geometry or third semester algebra at Iowa State University.

c. College of home economics. Two units of mathematics are required. One of the units must be algebra. The other unit may be algebra, geometry or trigonometry in any combination. Students who have not completed all of the required mathematics courses may take geometry or third semester algebra at Iowa State University.

d. College of sciences and humanities. For the curricula in Sciences and Humanities and Chemical Technology one and one-half units of algebra and one unit of geometry are required. Students who have not completed all of these courses may take geometry and third semester algebra at Iowa State University. For the curriculum in Physical Education for Men one unit of algebra is required.

e. College of veterinary medicine. Applicants for admission to the College of Veterinary Medicine must present $1\frac{1}{2}$ units of algebra and 1 unit of geometry from an approved high school and a total of not less than 90 quarter (60 semester) credits from an approved college or university.

The specific college credits will be prescribed by the faculty of the college.

Preprofessional students at Iowa State University enroll in either the College of Agriculture or the College of Sciences and Humanities.

A preveterinary student at Iowa State University may elect a three-year preveterinary program which when combined with the veterinary curriculum will lead to a Bachelor of Science Degree in the College of Agriculture or in the College of Sciences and Humanities.

All preveterinary students must have completed at least 45 quarter (30 semester) credit hours prior to filing an application for admission to the College of Veterinary Medicine. Applications must be filed with the director of admissions and records (Room 104 Beardshear Hall) prior to March 1 of the year in which the applicant seeks admission. A transcript of all high school and college credits must accompany the application. All preveterinary requirements must be fulfilled by the time of filing or scheduled for completion by June 15 of the year in which the applicant seeks admission. A list of courses in progress at the time of filing or scheduled for completion by June 15 should accompany the application and transcript. Preprofessional college credits must average at least 2.25 on a four-letter marking system with "A" as the highest mark (4.0) and "D" as the lower mark (1.0). The preceding scholastic requirements are minimum and do not assure admission even though these requirements have been fulfilled.

Because of limited facilities, admission to the College of Veterinary Medicine is on a competitive and selective basis. A preadmission conference with members of the veterinary faculty or other persons designated by the dean is required. High school records, scholastic performance in preprofessional course studies, aptitude, character and personality are given special consideration in the selection of candidates. Other qualifications being equal, residents of the state of Iowa are given preference.

Admission to the College of Veterinary Medicine is granted annually at the beginning of the fall quarter only.

READMISSION

Any student who voluntarily withdraws from the College of Veterinary Medicine or who is dropped for cause, forfeits his standing and must make written application for reinstatement to this college 30 or more days prior to the opening of the quarter in which the student desires readmission.

[Filed September 30, 1960; amended March 21, 1967]

2. Graduate college

a. Qualifications

An applicant who is a graduate of an institution in the United States whose requirements for the bachelor's degree are substantially equivalent to those at Iowa State University, and who ranks in the upper one-half of his class, may be admitted to the Graduate College. Admission does not constitute acceptance as a candidate for a degree.

Admission to the Graduate College may not be granted to a graduate of an institution in the United States which is not accredited by a recognized regional association.

b. Restricted Admission

An applicant may be granted restricted admission upon the recommendation of the department head and approval of the Graduate Dean. Acceptance of credit earned under restricted admission and transfer to unrestricted admission requires recommendation by the department head and the approval of the graduate committee.

Graduates of recognized universities located outside the United States may be granted restricted admission only.

3. Technical institute

One unit of geometry and one and one-half units of algebra are required. Students who have not completed all of these courses may take geometry or third semester algebra at Iowa State University. Provided, however, that unconditional admission to the Technical Institute may be granted to students who are not in the upper one-half of their graduating class.

C. UNIVERSITY OF NORTHERN IOWA

1. Admission policies for undergraduate students

A student must have filed an application for admission with the required transcripts and other supporting material, have met all conditions named in Part I, "Regulations Common to the Three Institutions", and been issued an admissions statement by the director of admissions and registrar before he is permitted to register in the college. In considering an application, consideration is given to scholarship, health, character, and personality. Individual students may be required by the Committee on Admission and Retention to come to the campus for interview and tests. Those who do not give reasonable promise of success as a college student may be denied.

Teaching curricula. Application for approval in a teacher education program may be filed after a student has earned at least twenty-four semester hours credit. The student must pass such tests and meet such other standards as may be prescribed by a teacher education committee. For full approval, a student must have at least a 2.20 grade index at this college. The committee may grant provisional approval for students in exceptional cases, but may not grant full approval until all standards have been met. Normally a student will be expected to meet full approval by the beginning of the junior year if he wishes to complete requirements in the minimum time. Transfer students cannot earn full approval before the end of the first semester enrolled at University of Northern Iowa.

A student may, at the time of admission to the college, declare an intent to enter a teaching program and be assigned a teacher adviser from his first enrollment. The college must give special consideration to scholarship, health, character, personality, and quality of potential leadership of an applicant for a

teaching curriculum. [Amendment filed and indexed November 21, 1961]

2. Admission requirements for graduate students

A graduate of a college or university accredited by the National Council for the Accrediting of Teacher Education or by the North Central Association of Colleges and Secondary Schools or a corresponding regional agency will be granted admission to graduate study if his application for admission has been approved by the registrar.

A graduate of a college or university that is not accredited may be granted conditional admission at the discretion of the registrar. Admission to graduate study does not guarantee admission to candidacy for an advanced degree.

STATE HYGIENIC (BACTERIOLOGICAL) LABORATORY IOWA CITY, IOWA

GENERAL REGULATIONS

[Filed September 29, 1952]

I. Specimens examined

1. *Classification.* This being a public health laboratory, all specimens submitted to it must have a direct, or probable significance to the public health.

2. *Who may submit specimens.*

A. *Physicians and others licensed in one of the healing arts.* Licensed physicians, osteopaths and other licensed practitioners may submit specimens needed for the control of Diphtheria, Typhoid fever, Tuberculosis, Undulant fever and in general any transmissible disease in which such tests are required by the Iowa state department of health.

B. *Veterinarians* (duly licensed) may submit specimens involving diseases of animals which are transmissible to man, if such examinations are required by the state department of health.

C. *State Department of Health* may submit specimens needed to carry out its fundamental responsibilities.

D. *Local departments of health.* Only specimens needed in special investigations will be accepted, i. e., we cannot undertake to receive specimens of a routine nature.

E. *Private individuals.* Specimens submitted by private individuals will be accepted only for private water supplies and only when collected under conditions specified by the laboratory, and when accompanied by the appropriate fee.

II. Charges

1. *Specimens examined free of charge.*

A. *Communicable diseases.* Specimens submitted relating to diseases communicable from man to man or from animals to man, provided such examinations are required by the rules and regulations of the Iowa state department of health.

III. Specimens for which fees are charged

1. Water specimens may be charged for at rates to be determined by the Iowa state board of regents subject only to any limitation imposed by law.

2. Specimens not covered by statute, by rules and regulations of the Iowa state department of health or as in III, may be examined and charged for at a rate commensurate with the actual cost involved.

STATE UNIVERSITY OF IOWA HOSPITALS
OFFICIAL RULES AND REGULATIONS
RELATING TO
ADMISSION OF PATIENTS

[Filed September 29, 1952]

I. Indigent Patients

A. The quota system: At the beginning of each fiscal year the hospital administration computes the county quota of indigent patients that may be admitted for treatment to the University Hospitals. This is done in full accordance with section 255.16 of the Code which provides that "... there shall be treated at the University Hospital during each fiscal year a number of committed indigent patients from each county which shall bear the same relation to the total number of committed indigent patients admitted during the year as the population of each county shall bear to the total population of the state according to the last preceding official census."

1. The 1950 Census of Population Report obtained from the U. S. Bureau of the Census is being used.

2. The quota is established after careful consideration of the amount of appropriated funds, the physical capacity of the hospital and the availability of trained personnel necessary for patient care.

3. If, after announcement of the quota at the beginning of the fiscal year, it becomes necessary to lower or raise it during the year's operation, the hospital administration reserves the right of so doing.

B. The commitment process: Chapter 255 of the Code describes in some detail the machinery provided at the county level for the processing of commitment papers for indigent patients. The hospital administration accepts no responsibility for the legal performance of county officials nor for the determination of indigency nor for the determination of legal residency of committed patients.

1. Routine. In the normal routine of admitting an indigent patient, the hospital requires:

a. Commitment Form No. 11, signed and certified by a judge of a juvenile court or the signature of a judge of a district court which at the same time serves as a juvenile court. The Commitment Form No. 11 remains an acceptable document only for the fiscal year in which it is initiated with the one exception that it does remain effective into a new fiscal year if the patient is under continuous treatment during the transition from one fiscal year into the new. In this situation the

commitment paper becomes void immediately upon discharge of the patient. The content of the above-mentioned form follows in full detail the description set forth in section 255.12 of the Code.

b. Physician's Report No. 4, acceptably signed by only a doctor of medicine or osteopathy. The hospital accepts without question the doctor's statement of need for hospitalization, as well as the doctor's evaluation of the patient's inability to pay for physician's services and hospital care.

2. Emergency: In cases of true emergency, which the Director of Welfare or the Overseer of the Poor is responsible for determining, the hospital will accept indigent patients without Commitment Form No. 11 and Physician's Report No. 4. The hospital insists, however, upon a guarantee, in telegraphic form, of the commitment by either of the above two authorities, as well as the opportunity of agreeing to the use of the hospital facilities prior to the assignment of an actual appointment.

C. The Admission: Any indigent patient directed to the University Hospitals in conformity with the policies described in sections A and B above will be admitted;

1. Providing, as outlined in section 255.1 the patient "... is pregnant or is suffering from some malady or deformity that can probably be improved or cured or advantageously treated by medical or surgical treatment or hospital care."

2. Excepting, as described in section 255.15 of the Code, if "... the presence of the patient in the hospital would be dangerous to other patients, or there is no reasonable probability that he may be benefited by the proposed treatment or hospital care."

3. Additionally, patients whose diagnosis is determined or accepted as being psychopathic, will not be admitted.

4. Additionally, patients whose diagnosis is determined or accepted as being active pulmonary tuberculosis, will not be admitted.

5. Finally, patients will not be accepted for diagnostic and therapeutic treatment by ancillary services only. Referrals must be to and through definite clinical departments.

The hospital administration holds that:

a. The determination of any of these factors rests with the admitting physician of the hospital or the admitting physicians of the interested clinical departments.

b. The determination of whether or not the patient shall be classed as inpatient or outpatient rests with the University Hospitals' physicians as provided in section 255.21.

c. It will attempt to discharge the responsibilities reflected in the establishment of the quota at the beginning of each fiscal year but it reserves the right to control the volume of patients on a day-to-day basis and, likewise, to indicate the preference for clinical types of illnesses based upon clinical departmental needs.

d. It accepts the full responsibility for all appointment schedules and the notification of incoming patients as to their date of admission and mode of transportation as approved by the local authorities.

e. It reserves the right to refuse admission of nonemergent cases when the approved machinery for admission has been circumvented.

D. The Charge to Quotas: The hospitals' physicians who are delegated the responsibilities of admitting shall ascertain the clinical service to which the incoming patient is to be admitted. This is done after review of the referring physician's medical report but not necessarily in accordance with this report.

1. The first admission of any patient during a fiscal year shall be charged to the quota of the county initiating the Commitment Form and Physician's Report. Subsequent admissions during the same fiscal year by the same patient shall not be charged to the county's quota.

2. Any admission to Obstetrics, Orthopedics, or Otolaryngology for cleft palate procedures may be accomplished without charge to county quotas as provided in section 255.16 of the Code. These patients if subsequently seen in any other clinical department then become a charge to the county's quota.

3. The charge to the county's quota is made at the time of the admission of the patient and not at the time of the receipt of the commitment forms.

4. The hospital administration accepts the responsibility for issuing a monthly statement of quota "usage" to each Iowa county. This report will list the name of the patient, the clinical department in which the patient was treated, the date of admission, the residency of the patient, and the current status of the county's quota balance.

II. Excess Quota Patients

A. Section 255.16 of the Code refers to the admission of patients from counties which have exceeded the established County Quota plus ten percent, as determined by the hospital administration at the beginning of each fiscal year.

B. Admitting policies for this category of patients are identical to those applicable to indigent patients. See I (B) and I (C) above.

III. Clinical Pay Patients

A. The University Hospitals provide a limited number of accommodations for patients of moderate financial means as allowed under section 255.19 of the Code.

B. All applications for admission under this patient category are initiated by the patient's local referring physician through submission of Hospital Form No. 63. In this form the referring physician endorses the medical need and the patient's inability to pay private rates for hospital service and physician's service. Hospital Form No. 63 is directed to the physician upon his request and appointments are made, if possible, upon receipt of the physi-

cian's medical report and properly endorsed application.

1. The hospital will accept applications from nonresidents of Iowa.

2. The selection of patients to be admitted in this category is based upon the hospital's ability to care for patients additional to those under the indigent program, and also upon their value as interesting clinical cases.

C. The hospital will not provide transportation for this category of patient.

D. The hospital will not provide accommodations outside the hospital for ambulatory patients.

E. At the time of registration the patient is interviewed and asked to pay the estimated cost of one week's hospitalization, and, during this interview, he is asked to explain such insurance coverages as might be applied to his hospital bill or physician's bill and proper assignments of such insurance policies are obtained.

IV. County Clinical Pay Patients

A. The University Hospitals provide a limited number of accommodations for patients of moderate financial means as allowed under section 255.19 of the Code.

B. All applications for admission under this patient category are initiated by the patient's local referring physician through submission of Hospital Form No. 63. In this form the referring physician endorses the medical need and the patient's inability to pay private rates for hospital service and physician's services. However, in variance with the procedure outlined under section III above for clinical pay patients, the hospital requires the endorsement of the form by the Director of Social Welfare or the Overseer of the Poor of the county in which the patient resides. Hospital Form No. 63 is directed to the physician upon his request and appointments are made, if possible, upon receipt of the physician's medical report and properly endorsed application.

1. The selection of patients to be admitted in this category is based upon the hospital's ability to care for patients additional to those under the indigent program, and also upon their value as interesting clinical cases.

C. The hospital will not provide transportation for this category of patient.

D. The hospital will not provide accommodations outside the hospital for ambulatory patients.

E. In variance with section III (E) above, the patient is not required to pay a deposit in advance of his hospitalization inasmuch as the cost is guaranteed by the local county. However, during the initial interview he is asked to explain such insurance coverages as might be applied to his hospital bill or physician's bill, and proper assignments of such insurance policies are obtained.

V. Private Patients

A. The University Hospitals provide a limited number of accommodations for patients able to pay the full cost of hospital service as

well as the charges for physician's services. Provision for these accommodations is specified in section 255.19 of the Code.

B. All requests for admission under this patient category are initiated either by the patient's local referring physician or through direct contact between patient and a clinical member of the faculty of the college of medicine.

1. The selection of patients to be admitted in this category is based upon the availability of hospital accommodations and the scheduling and staffing problems in the particular clinical department.

2. The hospital and the clinical department will accept both residents and nonresidents of Iowa.

3. The type of patients selected for inclusion in this category follows the limitations set forth for indigent patients under section I (C), items 1, 2, 3, 4 and 5.

C. The hospital will not provide transportation for this category of patient.

D. The hospital will not provide accommodations outside the hospital for ambulatory patients.

E. At the time of registration, the patient is interviewed and given a full explanation of the estimated costs of hospital and professional services likely to accrue during his hospitalization. During this interview he is asked to explain such insurance coverages as might be applied to either charge area and the proper assignments of such insurance policies are obtained. Agreement is reached with the patient regarding the method of completely discharging his potential indebtedness.

VI. State Services for Crippled Children

Indigent patients under 21 years of age who have a crippling condition included in the approved state services for crippled children plan, but who are unable to obtain legal commitment under the law, may be admitted and treated at the University Hospitals with the expense paid from the federal funds administered by this service. Application will be made to the Director of the State Services for Crippled Children, state University of Iowa, Iowa City.

VII. State Institution Patients

In accordance with section 255.28 of the Code, patients may be admitted from the State Board of Regents and the State Board of Control institutions to the University Hospitals for medical care. Form No. 71 authorizing treatment will be completed and forwarded to the University Hospitals. Transportation to and from the University Hospitals will be provided by the patient's institution.

VIII. Aid to the Blind

Eligibility for this category is determined by the division of public assistance of the state of Iowa. The approved application, together with a physician's report, is sent to the University Hospitals and an appointment is made for the patient.

IX. Sterilization Cases

Upon receipt of a letter from the state board of eugenics, authorizing sterilization, an appointment date is set for the patient. The patient may be admitted as indigent, clinical pay, county clinical pay, or private, dependent upon the patient's circumstances as outlined under those categories above.

X. Ward Special

All cases of diagnosed venereal disease with the specific exception of gonorrhea fall within this category. The procedure for admission under this category is identical with section IV above with the exception of:

(1) Clinical Pay Form No. 63 need not be signed by the Director of Social Welfare or the Overseer of the Poor.

(2) The cost is guaranteed by the Public Health Service.

XI. Veterans

Veterans are admitted and treated at the University Hospitals either as a clinical pay or private patient as outlined above, dependent upon the authorization received from the Veterans Administration.

XII. University Students

University students are treated at the University Hospitals as clinical pay patients as outlined above. They are referred by Student Health Service who guarantees a portion of the cost of hospitalization as outlined in their policies. The student is expected to pay the remainder, if any.

REVENUE DEPARTMENT

STATE BOARD OF TAX REVIEW

CHAPTER 1

CONDUCT OF APPEALS

1.1(421) Definitions. For the purposes of these rules the following definitions shall govern:

1. "Board" or "state board" shall refer to the state board of tax review created by chapter 421 of the Code.

2. "Department" shall refer to the Iowa department of revenue.

3. "Director" shall refer to the director of the Iowa department of revenue.

4. "Secretary" shall refer to the secretary of the state board of tax review.

1.2(421) Notice of appeal. Jurisdiction is conferred upon the state board by giving written notice to the department within thirty days of the rendering of the decision, order or directive from which such appeal is taken.

Notice of appeal may be given by certified

mail with return receipt requested addressed to the department of revenue to the attention of the director; or, by service on the director or an assistant director as provided by the Iowa rules of civil procedure.

Notice shall be proved by affidavit of mailing signed by appellant or his duly authorized representative, with return receipt and a copy of the notice attached filed with the secretary or, filing with the secretary a copy of the notice of appeal with return of service attached.

1.3(421) Contents of notice of appeal. The written notice of appeal shall substantially state in separate numbered paragraphs the following:

1. The appellant's name and legal residence.
2. The date appellant received the director's decision, order or directive.
3. The amount of assessment, nature of tax, year or other period, date of assessment, and approximate amount of total tax liability in controversy.
4. A clear and concise assignment of each and every error.
5. A clear and concise statement of the facts upon which the affected taxpayer relies as sustaining the assignment of error.
6. The relief requested.
7. The signature of affected taxpayer or his counsel, together with address to which all subsequent correspondence, notice or papers shall be served or mailed.

1.4(421) Certification by director. Within fifteen days after notice of appeal is given the director shall certify to the board all records, documents, reports, audits, a copy of the decision, order or directive from which appeal is taken and all other information pertinent thereto.

1.5(421) Motions and special appearances. All motions or special appearances shall be in writing and shall be filed with the state board within fifteen days after the filing of the pleading attacked and shall set forth the reasons and grounds thereof. The state board shall act upon such motions or special appearances as justice may require. Motions based on matters which do not appear of record shall be supported by affidavit.

1.6(421) Responsive pleadings. Responsive pleadings shall be filed with the state board within fifteen days after the filing of pleading responded to, unless attacked by motion or special appearance as provided in rule 1.5 (421), and then responsive pleadings shall be filed within fifteen days after ruling on said motion or special appearance.

1.7(421) Docketing. Appeals shall be assigned consecutive file numbers. The state board shall cause to be kept a well bound, blank record book with suitable index. There shall be entered therein each action and each act done with the proper dates as follows:

1. The title of the appeal.

2. Brief statement of the type of tax, year or period, date of assessment, and the amount involved including tax, penalty, interest and costs.

3. The manner and time of service of notice of appeal.

4. The appearance of all parties.

5. Notice of hearing, together with manner and time of service.

6. The decision of the state board or other disposition of the case and the date thereof.

1.8(421) Filing of papers. After filing proof of giving notice, all motions, pleadings, briefs and other papers to be filed shall be in quadruplicate with the secretary who shall send copies to members of the state board and to all other parties of record, unless represented by counsel of record, then to each counsel.

1.9(421) Hearing an appeal. Hearing an appeal shall be de novo. The case may be submitted on an agreed statement of the facts with written briefs and arguments. Or, the state board, on its own motion or at the written request of any party, may allow the production of evidence, by oral testimony or otherwise, and the submission of the case on oral arguments, or any combination of the foregoing.

1.10(421) Amendments. The board, upon its own motion or upon motion of either party showing good cause filed prior to setting the appeal for hearing, may order a party to file a further and better statement of the nature of his claim or defense. Such a motion filed by a party shall point out defects complained of and the details desired.

The state board may set such motions for hearing or may rule thereon ex parte.

The state board may at any time during the course of the hearing grant motion of either party to amend to conform to the proof.

1.11(421) Appearances by appellant. Any appellant may appear in person, or, in the case of corporations, partnerships or other associations, by its duly authorized representative, or by an attorney at law or a C.P.A. authorized to practice in the state of Iowa.

1.12(421) Prehearing procedure. The state board, on its own motion or on the written request of any party, may order a prehearing conference to consider:

1. The desirability of amending pleadings.
2. Agreeing to the admission of facts, documents or records not really controverted, to avoid unnecessary proof.
3. Limiting the number of witnesses.
4. Settling any facts of which the state board is to be asked to take judicial notice.
5. Stating and simplifying the factual and legal issues.
6. Consolidation or separation of cases.
7. Possibility of compromise.
8. Manner of submission of case.
9. Any other matter which may aid, expedite or simplify the hearing.

The state board shall make an order reciting any action taken at the prehearing conference which will control the subsequent course of the case relative to matters it includes, unless modified to prevent manifest injustice.

1.13(421) Continuances. Any hearing may be continued for good cause. Requests for continuance prior to the hearing shall be in writing, promptly filed with the state board immediately upon the cause becoming known.

1.14(421) Place of hearing. Unless otherwise designated by the state board, the hearing shall be held in the office of the State Board of Tax Review, Lucas State Office Building, Des Moines, Iowa 50319.

1.15(421) Members participating. All appeals shall be heard by a minimum of two members of the state board. Orders and decisions shall be signed by one member of the board and shall name members participating. Decisions shall affirm, modify, remand or reverse the director's decision, order or directive. A majority decision by the state board shall govern and control. Written dissenting decisions may be filed.

1.16(421) Presiding officer. The chairman of the state board or his designated member shall preside at the hearing.

1.17(421) Rulings of the chair. The presiding member shall rule upon motions, objections and other evidentiary matters arising during a hearing, or such rulings may be deferred to the state board or reserved.

1.18(421) Liberal rules of evidence. The common law and statutory rules of evidence shall be liberally construed in hearings before the state board.

1.19(421) Transcript of hearing. Hearings shall be stenographically reported and a transcript thereof shall be made if in the opinion of the state board a permanent record is deemed necessary. Either party may provide a certified court reporter at their own expense.

1.20(421) Suspension or alterations of rules. The board may in its discretion, on its own motion, or upon request by the parties, amend, modify or suspend any of its rules or may adopt other or different rules for the conduct of hearings and procedure before the board. However, no such change shall be made retroactively to the detriment of any party.

[Filed December 9, 1969]

REVENUE DEPARTMENT

[Editors' Note: The following rules of the former State Tax Commission are in the process of revision. However, the revised and corrected rules were not received in time for publication in this volume.]

[Rules relating to motor fuel tax previously promulgated by the Treasurer of State have been printed under that heading.]

RULES RELATING TO THE ASSESSMENT AND COLLECTION OF THE INDIVIDUAL INCOME TAX ON RESIDENT AND NONRESIDENT INDIVIDUALS, PARTNERSHIPS, ESTATES AND TRUSTS AND THE BUSINESS TAX ON DOMESTIC AND FOREIGN CORPORATIONS

[Filed September 27, 1955]
INCOME TAX REGULATIONS

22.4-1 Definitions. Words and phrases not defined in the Act, but used herein, are defined by the commission as follows:

a. "Carrying on trade or business" and similar terms:

1. The terms "trade or business carried on" and "carrying on a trade or business" mean a regular and systematic course of transactions with the public (whether by the owner or by his agents or other representatives) at or from a store, a shop, a factory, an office, or an agency, such activity being carried on with a fair measure of permanency and continuity.

2. These terms do not include any casual or isolated transactions, income in the form of compensation for labor or for personal services rendered, transactions or activities the income from which may be exempt from taxation. These terms include the practice of a profession and the renting of properties.

3. If a taxpayer pursues an undertaking constantly, relying on his profit therefrom for his income or a part thereof, he is carrying on a business or occupation. A "trader" in securities who trades regularly and constantly with the public on his own account and makes it his business is carrying on a trade or business.

4. The owning and renting of real estate is regarded as a trade or business.

b. The term "fair market value" has been judicially defined as being "the price which property will bring when it is offered for sale by one who is willing, but is not compelled to sell it, and is bought by one who is willing or desires to purchase, but is not obligated to do so." The term implies the existence of a public of possible buyers at a fair price, and recognizes that the property has no "fair market value" when market conditions are such that there would be no trading in the property in question at a fair price.

c. The words "include" and "including" as used in these regulations shall not be deemed to exclude things otherwise within the meaning of the term defined.

d. The term "income tax" includes personal net income tax and the business tax on corporations.

e. The words "intangible property" mean money, bank deposits, shares of stocks, bonds, notes, credits, evidences of debt, choses in action, or evidence of interest in property, and all property other than tangible property.

f. The words "integrated with" mean inseparably connected with.

g. The words "tangible property" mean real property and personal property that has bodily form and substance, and does not include property defined as intangible property.

h. The term "computed tax" means the amount of tax remaining after deduction of personal exemption, and credit for dependents.

22.5-1 Who are taxpayers. The word "taxpayer" includes under this division:

- a.* Every resident of the state of Iowa;
- b.* Every estate and trust resident of this state whose income is in whole or in part subject to the state income tax;
- c.* Nonresident individuals and estates and trusts (those with situs outside of Iowa) receiving taxable income from property owned in Iowa or from business, trade, profession or occupation carried on or followed in this state.

A minor or an incompetent may also be a taxpayer.

[Amended August 24, 1962]

22.5-2 Meaning of domicile. In general the terms "domicile" and "residence" are frequently used synonymously; however, they are not, when accurately used, convertible terms. "Domicile" is of more extensive significance than "residence" and includes beyond mere physical presence at the particular locality positive or presumptive proof of an intention to constitute it a permanent abiding place. "Residence" is of a more temporary character than domicile. What constitutes domicile is a question of fact rather than of law, frequently depending upon a variety of circumstances and the commission may require a statement of circumstances in determining a particular case.

A domicile once acquired continues until a new one is acquired by intent to change, actual removal and a new abode, with abandonment of the former domicile. Receipt by a taxpayer of a homestead tax credit is deemed conclusive evidence of Iowa domicile. Where a resident of Iowa removes to another state and establishes his residence in such other jurisdiction, but retains the voting privilege in Iowa, such individual is held not to have abandoned his Iowa domicile, and the state income tax will be legally imposed upon the entire income of such individual. *Prima facie*, the wife's domicile follows that of her husband. Ordinarily the domicile of an infant follows that of the father and after his death that of the mother until remarriage. The domicile of a ward is not necessarily determined by that of the guardian.

Domicile of members of the armed forces is to be determined as follows:

a. Residents. Persons who were residents of Iowa at the time of becoming members of the armed forces will be considered as continuing to be residents of Iowa, notwithstanding absence from the state by reason of such service.

b. Nonresident. Conversely, persons who were nonresidents of this state at the time of becoming members of the armed forces will not be held subject to the Iowa income tax by reason of their presence in this state in pursuance of military orders.

22.6-1 Fiduciary defined. A "fiduciary" for income tax purposes is one who holds in trust an estate to which another has the beneficial title, or in which another has a beneficial interest, or receives and controls income of another, as in the case of a receiver. There may be a fiduciary relationship between an agent and a principal, but the word "agent" does not denote a fiduciary.

22.6-2 Taxing income from estates and trusts. An estate or trust is a taxable entity. A fiduciary may compute the income of the estate or trust on either a "cash basis" or an "accrual basis" depending upon the method of accounting used by him. In filing its first return an estate may choose the same accounting period as the decedent, or it may choose a calendar year or any fiscal year it wishes. If it chooses the same accounting period as the decedent had, its first return will be for a short period to fill out the unexpired full year of the decedent. A full-year specific exemption credit is allowed on a short-period return, without proration. If the estate or trust is required to file a federal income tax return, the basis used on the state return must be the same as that used on the federal return.

22.6-3 Taxable income of estates or trusts. In the case of estates or trusts, the words "taxable income" mean the taxable income (without a deduction for personal exemption) as computed for federal income tax purposes under the Internal Revenue Code of 1954, but with the adjustments specified in section 422.7, Code of Iowa, 1954. Under the provisions of the Internal Revenue Code of 1954, the taxable income of an estate or trust is found by subtracting from its gross income allowable deductions, amounts distributable to beneficiaries, to the extent of its distributable net income, and the proper exemption amount. This is the case whether the fiduciary is an individual, a group of individuals, a corporation, or other representative.

The Internal Revenue Code of 1954 provides that gross income of an estate or trust includes:

1. Income accumulated in trust for the benefit of unborn or unascertained persons or persons with contingent interests, and income accumulated or held for future distribution under the terms of the will or trust;

2. Income which is to be distributed currently by the fiduciary to the beneficiaries, and income collected by the guardian of an infant which is to be held or distributed as the court may direct;

3. Income received by the estate of a deceased person during the period of administration or settlement of the estate; and

4. Income which, in the discretion of the fiduciary, may be either distributed to the beneficiaries or accumulated.

However, all these items eventually are not entirely taxed to the estate or trust. The income in (1) is taxed to the estate or trust; the

income in (2) is usually deductible by the fiduciary and is taxed to the beneficiary, whether distributed or not; the income specified in (3) and (4) may be eventually taxed to the fiduciary or to the beneficiary, depending upon the amounts which are properly paid or credited to the beneficiary.

22.6-4 Period of administration defined. The "period of administration or settlement of the estate" is the period required by the executor or administrator to perform the ordinary duties pertaining to administration, the collection of assets and the payment of debts or legacies. It is the time actually required for this purpose, whether longer or shorter than the period specified in the statute for the settlement of estates. Where an executor, who is also named as trustee, fails to obtain his discharge as executor, the period of administration continues up to the time when the duties of administration are complete and he actually assumes his duties as trustee, whether pursuant to a court order or not.

22.6-5 Filing individual returns for a decedent.

a. An executor or administrator of the estate of a deceased person shall file a final individual income tax return for the decedent for the year of decedent's death. Either Form IT-1 or Form NR-1 should be used, depending on whether decedent was a resident or nonresident of Iowa. Such return is due on or before the last day of the fourth month after the expiration of the decedent's normal tax year.

A return for the period starting with the decedent's normal tax year to the date of death may be submitted in advance of its regular due date however, and, in some cases, may be necessary in order to obtain the certificate of acquittance as provided in section 422.27, Iowa Code, 1958, as amended.

In making such return the fiduciary shall use the same method of computing the income, either the cash or accrual basis, as was last used by the decedent in reporting income prior to death. If the commission discovers from an examination of such return or of the fiduciary return for decedent's estate, or otherwise, that decedent had not filed Iowa individual returns for prior years, and where it appears that decedent may have had sufficient taxable income to require returns from him, the fiduciary shall be responsible for making and filing individual returns for the decedent for the preceding taxable years. In any case where there is no fiduciary acting and no administration is had on decedent's estate at the time the final Iowa individual return of income for the decedent is due, then the surviving spouse, if there is one, or next of kin of decedent who has knowledge of decedent's income shall be responsible for making and filing such decedent's final return. Such accounting of a decedent's income will be required before the certificate of acquittance mentioned in subsection 1 of section 422.27 of the Code, will be issued.

b. A joint return may be filed where one or both spouses die during the year, where the taxable year of both begins on the same day, whether such year is a fiscal or calendar year. The fiduciary of decedent's estate may join with the surviving spouse in the filing of a joint return. In the case of a joint return, it is made for the regular taxable year of the survivor and the short period of the decedent.

A joint return cannot be filed where the surviving spouse remarries before the close of the taxable year in which the decedent died, nor can such joint return be filed in those cases where it is necessary to file a return for the decedent (for a short period) in advance of its regular due date as provided in paragraph "a".

c. If the decedent was on the accrual method of accounting, then amounts which would accrue only because of his death are not to be included on his final individual return.

d. Deductions of a decedent are not to be accrued on his final individual return unless his accounting method require it, but are deductible instead by the estate or other person who paid them or is liable for their payment.

e. In general, the same rules must be applied to a final individual return for a decedent as in the case of any living taxpayer.

f. A final individual return for the year that death occurred is required for a decedent if his taxable income amounted to six hundred dollars or more. If no such return is required in any case, then the fiduciary of decedent's estate, if one is acting, or the surviving spouse or next of kin, shall advise the fiduciary income tax department of the Iowa state tax commission by not later than the last day of the fourth month after the expiration of the decedent's normal tax year that no final individual return for decedent was required.

g. No proration of the personal exemption credit is required because of death of decedent during the taxable year. On the final separate return of a decedent the deceased is entitled to the personal exemption credit of a single person and to the single person exemption credit of the surviving spouse if the survivor had no gross income and was not a dependent of anyone else provided, however, that the exemption of the surviving spouse will not be allowed on a return required to be filed (for a short period) in advance of its regular due date as provided in paragraph "a". A decedent, who furnished over half the support to a person otherwise qualifying as a dependent, would be entitled to the full exemption for such dependent, without proration.

h. In computing income of a decedent for tax years commencing after December 31, 1954, the provisions of chapter 208, Acts of the 56th G. A. are to be followed.

i. The final individual return of income for a decedent or the joint return of a surviving spouse and a decedent shall be mailed to or delivered to the Iowa State Fiduciary Income

Tax Division, State Office Building, Des Moines 19, Iowa.

[Amended August 24, 1962]

22.6-6 Fiduciary returns of income for estates and trusts.

a. Fiduciary returns of income for estates and trusts are to be made on Form IT-4. A copy of the federal fiduciary return must accompany Iowa Form IT-4. Such returns are due on or before the last day of the fourth month after the expiration of the tax year of the estate or trust. Such returns shall be mailed to the Iowa State Fiduciary Income Tax Division, State Office Building, Des Moines 19, Iowa.

[Amended August 24, 1962]

b. An estate or trust is allowed to establish as its taxable year a calendar year or fiscal year, depending on what basis the accounting records of the estate or trust are kept. In the case of an estate for a deceased person, the first fiduciary return of income should ordinarily commence with the day next after date of decedent's death, and in making such first return the estate may choose the same accounting period as the decedent, or it may choose a calendar year or any fiscal year it wishes. The state of Iowa fiduciary return must cover the same period of time as that covered by a federal fiduciary return for the estate or trust for the particular year.

[Amended August 24, 1962]

c. If the gross income of an estate or trust for a tax year amounts to six hundred dollars or more, the fiduciary thereof shall make and file an Iowa fiduciary return of income for the estate or trust. In the case that the estate or trust is ready for closing and where the fiduciary applies for an income tax clearance certificate for filing under the provisions of section 422.27, there shall be filed a final fiduciary return for the estate or trust regardless of the amount of income or whether any income was received by the fiduciary. Such final fiduciary return shall be filed at the time application is made for such certificate of acquittance, and will be required regardless of whether or not the fiduciary makes a federal fiduciary return of income covering such final period of time.

[Amended August 24, 1962]

d. A fiduciary in making an Iowa fiduciary return for an estate or trust shall include thereon all items of income reported or reportable for federal income tax purposes under the Internal Revenue Code of 1954. In determining the Iowa taxable income of the fiduciary, the personal exemption deduction of the fiduciary for federal income purposes cannot be taken. The adjustments specified in section 422.7, Code of Iowa, 1958, as amended, must be made.

[Amended August 24, 1962]

e. A fiduciary in taking deductions from income of an estate or trust on an Iowa fiduciary return shall include items of deductions

reported or reportable for federal income tax purposes under the Internal Revenue Code of 1954, but in taking a deduction for taxes paid or accrued, the fiduciary is permitted to take a deduction for federal income tax paid or accrued by the estate or trust in the tax year, but the amount of such deduction shall be adjusted by any amount of federal income tax refunded to the estate or trust in that tax year, so that the said refund will be made subject to the Iowa tax. Also, for Iowa income tax purposes, the fiduciary will not be permitted to include as a deduction any amount of Iowa income tax paid by the fiduciary.

f. The fiduciary shall show on the Iowa fiduciary return the amount of income of the estate or trust distributed or distributable to beneficiaries as reported on the federal fiduciary income tax return, and shall also show the amount of taxable income of the estate or trust distributed or distributable to beneficiaries for Iowa income tax purposes. In those cases where for federal income tax purposes only part of the year's income is distributed or distributable to beneficiaries, the distribution for federal income tax purposes will differ in most cases from the amount that for Iowa income tax purposes is distributed or distributable. Such difference being brought about by adjustments to income and deductions required under the Iowa income tax law as amended. The amount of income to be shown on the Iowa fiduciary returns as distributed or distributable shall bear the same ratio to the net income of the estate or trust for Iowa income tax purposes as that between the amount distributed or distributable for federal income tax purposes and the net income for such federal income tax purposes.

Example: A trust has income and deductions for federal and Iowa income tax purposes as follows:

	Federal	Iowa
Total income	\$20,000.00	\$18,000.00
Deductions	4,000.00	8,000.00
Interest, taxes, depreciation, charitable deductions and miscellaneous deductions		
Net income	\$16,000.00	\$10,000.00
Deduction for distribution to beneficiaries .	\$ 8,000.00	\$ 5,000.00
For federal income tax purposes the ratio of the distribution to net income was	\$ 8,000.00	\$16,000.00

and the ratio equals fifty percent.

For Iowa income tax purposes, fifty percent of \$10,000.00, net income, equals \$5,000.00 to be shown distributed to beneficiaries.

However, in any case where such method of determining the distribution amount for Iowa income tax purposes is in conflict with or contrary to the terms of the will or trust instrument in the case, the fiduciary may use

such other method in determining the distribution amount as appears proper under the facts in the case, and consistent with the amount distributed to the beneficiaries for federal income tax purposes. Any such method of arriving at the distribution amount for Iowa tax purposes shall be fully explained on the Iowa fiduciary income tax return.

In case distribution of income of an estate or trust is made to nonresident beneficiaries, the fiduciary shall show on the Iowa fiduciary income tax return the part of the distributive share of any nonresident beneficiary that is subject to the Iowa income tax in the hands of the nonresident distributee and the part of such share not subject to the Iowa tax.

g. In the case of a trust, the fiduciary shall state on the Iowa fiduciary return of income whether the trust is a "simple trust" or a "complex trust" with respect to the matter of determining the deduction allowable for distributions to beneficiaries for federal income tax purposes.

h. A trust or estate may not deduct as a distribution to a beneficiary, and a beneficiary is not taxable on, any amount which constitutes a gift or bequest of a specific sum and which is paid or credited all at once or in not more than three installments. However, an amount will not be treated as an excluded gift or bequest if the governing instrument provides that the specific sum is payable only from the income of the estate or trust.

i. The fiduciary shall be allowed to take a specific exemption credit of fifteen dollars, the same as allowed a single person, regardless of whether the return covers a period of less than twelve calendar months. Neither estates nor trusts are allowed credit for dependents.

[Amended August 24, 1962]

j. In computing the Iowa tax on the taxable income of the fiduciary the same tax rates are to be used as apply in the case of individuals.

k. A fiduciary shall act as a withholding agent and make withholdings for the Iowa income tax in accordance with the provision of section 422.16, Code of Iowa, 1958, and regulations thereunder, in those cases where income of an estate or trust subject to the Iowa tax is distributed to a beneficiary who is a nonresident of the state of Iowa. Such withholdings to be reported on Forms NR-5 and NR-5A.

[Amended August 24, 1962]

l. It is improper to pay any tax on a final fiduciary return, inasmuch as the income received during the final period is distributable and taxable to the beneficiaries. In any case in which it is believed that tax is due and payable on a final fiduciary return, a statement in support of such filing must be submitted with the final return. Such statement should set forth the reasons for paying the tax on the final return and the statutory authority on which the fiduciary relies.

[Filed August 24, 1962]

m. If the internal revenue service has audited returns of the decedent and such audits resulted in additional tax, then such audits must be submitted by the fiduciary as soon as available, but not later than the date request is made for certificate of acquittance as provided in section 422.27, Iowa Code, 1958, as amended. If federal audits of the deceased are in process but not final at the time of requesting of the clearance heretofore mentioned, then a statement advising the fiduciary department to that effect must be submitted with such request.

[Filed August 24, 1962]

22.6-7 Copy of inventory of estate or trust required, also copy of will or trust instrument. In the case of an estate for a deceased person, a copy of the final report to the court and the probate inventory showing the items of real and personal property inventoried into the estate, and their values as used for state inheritance tax purposes, must be filed with the fiduciary income tax department, and should accompany the first fiduciary return of income filed for the estate with said department. If the decedent died testate a copy of the will should also accompany the first fiduciary return of income. In the case of a trust, a list of the assets comprising the trust and a copy of the written instrument under which the trust was created must be filed with the first fiduciary return of income.

In addition to the required trust instrument, there shall also be filed a statement by the fiduciary indicating the provisions that determine the taxability of the income to the trust beneficiaries or the grantor. If the trust instrument is later amended, a copy of the amendments and a statement as to its effect on the taxability of the trust income must be attached to the return for the year to which such amendments apply.

In the case of a guardianship, a list of the assets that comprised the guardianship matter must be filed with the first return of income filed under the guardian's jurisdiction. Such copies should be certified by the fiduciary as true and complete copies.

One filing will suffice, but in each subsequent return the fiduciary should state the prior return to which such copy or copies were attached. If the trust instrument is amended in any way, a copy of the amendment must be filed with the return for the taxable year in which the amendment was made. Where a statement is made by the fiduciary to the effect that the immediate filing of the will, trust instrument, or inventory will work undue hardship on the fiduciary, such return may be filed as soon as practical after the filing of the return, but not more than three months later.

[Amended August 24, 1962]

22.6-8 Returns by guardian.

a. A guardian of a minor or of any other person under legal guardianship must make a return of income for his ward and pay the tax

due thereon in those cases where the ward has gross or net income sufficient in amount to require the filing of a state income tax return, unless, in the case of a minor under guardianship, the minor himself proceeds to make and file his return or causes it to be made and filed. In the case of an incompetent ward who is married and living with husband or wife, the aggregate gross or net income of such husband and wife will be controlling in determining whether a return must be made. Ordinarily, the individual income tax blank should be used.

b. In the case of a guardian of a minor, an incompetent person or other ward, where it becomes necessary to terminate the guardianship matter and to have the certificate of the commission to file with the guardian's final report to the court, the guardian shall make a final fiduciary return on Form IT-4. Such fiduciary return shall reflect the income (if any) received by the guardian during the period commencing with the ward's regular tax year to the date of termination of the guardianship matter. The fiduciary return mentioned heretofore shall also be filed in cases where the death of the ward is the reason for requesting a certificate of acquittance. The income shown on the fiduciary return shall be shown as distributed to the ward and will be taxable on the ward's current year return (IT-1), or on the final return Form IT-1 if the ward is deceased. Under no circumstances is tax due and payable on such fiduciary return. The return in these cases is merely an information return. In cases where more than one ward is under guardianship, a separate fiduciary return (IT-4) must be filed for each ward. A final return of a deceased ward is required to be filed if the taxable income for such final period amounts to six hundred dollars or more. If no individual returns of income have been filed by or for the person under guardianship for the years prior to the year of closing the guardianship, a statement must accompany the final return explaining why no such returns were filed.

c. The first return of the ward shall be accompanied by a list of the assets in the guardianship matter. If no returns are required to be filed, then such lists shall accompany the fiduciary return mentioned in paragraph "b" above.

[Amended August 24, 1962]

22.6-9 Income of estates and trusts taxed to the beneficiaries.

a. In any case where income of an estate or trust is distributed or distributable for federal income tax purposes to beneficiaries, and a deduction is taken for the amount of such distributed or distributable income determining the taxable income of the fiduciary, the beneficiaries to whom the income was paid or credited shall include their respective shares of such income on their individual returns in reporting income to this state. Nonresidents of Iowa

beneficiaries are required to report to this state only such part of their distributive share of income of an estate or trust as is derived from Iowa sources.

b. Amounts of income of estates and trusts shown distributed or distributable to beneficiaries on federal fiduciary returns of income will in most every case not be taxable in the same amount to the respective beneficiaries in reporting the income of such beneficiaries for Iowa income tax purposes. If the fiduciary of the estate or trust fails to advise the beneficiary as to what part of his distributive share of the income is subject to the Iowa income tax, the beneficiary should make inquiry before proceeding to report such income on his Iowa individual return, so that he may make necessary and proper adjustments to the amount of his distributive share of such income in determining his Iowa taxable income.

c. Capital losses of an estate or trust will reduce the taxable income of the estate or trust, but no part of the loss is deductible by the beneficiaries. If the estate or trust distributes all of its income, the capital loss will result in no tax benefit for the year of the loss. However, under the Internal Revenue Code of 1954, on termination of an estate or trust, any unused capital loss carry-over of the estate or trust is available to the beneficiaries.

d. If the taxable year of a beneficiary is different from that of the estate or trust, the amount to be included in the gross income of the beneficiary shall be based on the distributable net income of the estate or trust and the amounts paid, credited, or required to be distributed to the beneficiary during any taxable year or years of the estate or trust ending within or with his taxable year.

e. A beneficiary of an estate or trust in reporting on his Iowa income tax return his distributive share of the income thereof shall show the name and location of the estate or trust.

22.7-1 Adjusted gross income for federal income tax purposes under the Internal Revenue Code. [As amended through 1960.] In determining Iowa taxable income, each taxpayer starts with the adjusted gross income which he reported for federal income tax purposes for the year. This must be used even though it contains income which the state of Iowa is constitutionally prohibited from taxing. Adjustments to that starting amount are described in rules 22.7-2 through 22.7-4 and 22.7-11 through 22.7-13. The proper handling of adjusted gross income and adjustments where spouses file separate returns is described in rule 22.7-7.

[Amended August 24, 1962]

22.7-2 Interest and dividends from federal securities. The state is prohibited by federal law from taxing dividends received from corporations owned or sponsored by the federal government, or interest derived from obligations of the United States, and its possessions,

agencies and instrumentalities. Therefore, if adjusted gross income for federal income tax purposes included any dividends or interest of this type, an adjustment must be made on the Iowa return, deducting the amount of such dividends or interest.

Any interest or dividend received from the following sources is exempt and to be deducted:

Commodity Credit Corporation
Farmers Home Corporation
Federal Deposit Insurance Corporation
Federal Farm Loan Corporation
Federal Home Loan Banks
Federal Intermediate Credit Banks
Federal Land Banks
Federal Savings and Loan Insurance Corporation
National Farm Loan Associations
Joint Stock Land Banks
Home Owners' Loan Corporation
Production Credit Corporation
Central Bank for Cooperatives
Reconstruction Finance Corporation
United States Housing Authority
United States Maritime Commission
War Finance Corporation
Federal Housing Administration
National Mortgage Associations

Any interest or dividend received from the following sources is not exempt:

Federal or State Savings and Loan Associations
Tennessee Valley Authority
Panama Canal Bonds
Philippine Bonds
Building and Loan Associations
Exempt State Corporations

Interest received in the following instances is not exempt:

- a. On refunds of federal income tax.
- b. On interest-bearing certificates issued in lieu of tax exempt securities, such income losing its identity when merged with other funds.
- c. On debentures issued to mortgagees of mortgages foreclosed under the provisions of the National Housing Act.
- d. On promissory notes of a federal instrumentality.

22.7-3 Interest and dividends from foreign securities, and securities of state and other political subdivisions. Interest and dividends from foreign securities and from securities of states and other political subdivisions are to be included in Iowa taxable income. For constitutional reasons or because of specific exemption, such interest and dividends may not have been subject to federal income tax, and therefore not included in adjusted gross income for federal income tax purposes. To the extent such income has been so excluded, it must be added to adjusted gross income in order to arrive at Iowa taxable income.

22.7-4 Basis for purposes of determining capital and other gains and losses. In some instances adjusted gross income for federal

income tax purposes will include capital gains or losses, or gains or losses from property other than capital assets, where the basis for computing gain or loss on such property was established prior to January 1, 1934. In such case, the taxpayer may use as his basis the higher of cost, adjusted for depreciation allowed or allowable to January 1, 1934, or fair market value as of that date. If as a result of this provision a basis is to be used for purposes of Iowa income tax which is different from the basis used for purposes of federal income tax, appropriate adjustment must be made in the computation of Iowa taxable income.

22.7-7 Adjusted gross income—separate returns by spouses. If spouses filed a joint return for federal income tax purposes and are filing separate returns for Iowa income tax purposes, allocation of adjusted gross income between them becomes necessary. Each return must show the adjusted gross income reported on the federal return, and the division between each spouse. Income may not be allocated on arbitrary basis. Wage and salary income shall be allocated to the spouse earning the same. Income from property or business shall be allocated to the spouse owning the property or business. If the title to property or business is in one of the spouses, prima facie that property or business is owned by that spouse. Adjustments for exempt and non-exempt interest and dividends, and basis for gains and losses, shall be subject to the same rules of allocation between the spouses. Statements explaining the allocation must be attached to both returns.

22.7-9 Interstate or foreign commerce. Taxation of income derived from transactions in interstate or foreign commerce does not constitute such a burden on such commerce as to render the income immune from taxation by the state.

22.7-10 Income from federal, state or municipal contracts. Any compensation or income derived by a taxpayer from a contract performed for the United States, a state, or a political subdivision thereof, is taxable income.

22.7-11 Capital gains occurring prior to 1955 tax year. As capital gains and losses were not included in "gross income" and not subject to Iowa income tax, for any tax year of a taxpayer prior to the tax year beginning in 1955, any capital gains and losses on transactions occurring in such prior tax years are not to be reflected in "taxable income" for Iowa income tax purposes even though under the method of accounting adopted by the taxpayer for federal tax purposes a portion of the gain or loss is reflected in federal taxable income for years which begin in 1955 or thereafter. For example, if a farmer sells his farm on a twenty-year contract in 1952, and reports his profit on the installment basis for federal income tax purposes, his Iowa return for 1955 and subsequent tax years should be so ad-

justed as to exclude that profit in determining Iowa taxable income.

[Amended August 24, 1962]

22.7-12 Installment sales made prior to 1955 tax year. Persons engaged in the business of selling personal property who kept records on the installment basis and reported on such basis for federal tax purposes were required to report for Iowa income tax purposes on the accrual basis for tax years beginning prior to January 1, 1955. To the extent that their returns for tax years beginning January 1, 1955, or thereafter reflect installment sales reported for Iowa income tax purposes on the accrual basis in those prior years, adjustment should be made on the returns for those years beginning on or after January 1, 1955.

22.7-13 Capital loss carry-over. If taxpayer has a net capital loss in any tax year which began prior to January 1, 1955, and for federal tax purposes carries forward the amount of such loss to a tax year beginning on or after January 1, 1955, he, however, is not entitled to carry that amount forward to such tax years for Iowa income tax purposes, and shall make such adjustments on his Iowa return as are necessary to prevent those amounts from being reflected in his Iowa taxable income for those years.

22.8(1)-1 Tax credit for income earned out-of-state. If an Iowa resident pays income tax to another state or foreign country on any of his income, he is entitled to a net tax credit; that is, he may deduct from his Iowa net tax (not from gross income) the amount of income tax actually paid to the other state or country, provided the amount deducted as a credit does not exceed the amount of Iowa net income tax on the same income which was taxed by the other state or foreign country.

[Amended August 24, 1962]

22.8(1)-2 Computation of tax credit. The limitation on the tax credit must be computed according to the following formula: Income earned in another state or country and taxed by such other state or country shall be divided by the total income of the taxpayer resident of Iowa. Said quotient multiplied times the net Iowa tax as determined on the total income of the taxpayer as if entirely earned in Iowa shall be the maximum tax credit against the Iowa net tax.

[Amended August 24, 1962]

22.8(1)-3 Proof of claim for tax credit. The credit may be deducted from Iowa net income tax if written proof of such payment to another state or foreign country is furnished to the state tax commission. The commission will accept any one of the following as proof of such payment:

1. A photo copy, or other similar reproduction of either

a. The receipt issued by the other state or foreign country for payment of the tax, or

b. The canceled check (both sides) with which the tax was paid to the other state or foreign country together with a statement of the amount and kind (that is, whether wages, salaries, property, or business) of total income on which such tax was paid. Or when attached to a copy of the return filed with another state or foreign country.

2. A copy of the income tax return filed with the other state or foreign country which has been certified by the tax authority of that state or foreign country and showing thereon that the income tax assessed has been paid to them.

3. If resident employees are employed in other states at intervals throughout the year, as would be the case if employed in operating trains, planes, motor buses, trucks, etc., between this state and other states and foreign countries, and are paid on a daily, weekly or monthly basis, the gross income from sources within this state includes that portion of the total compensation for personal services which the total number of working days employed within the state bears to the total number of working days both within and without the state. If the employees are paid on a mileage basis, the gross income from sources within this state includes that portion of the total compensation for services which the number of miles traveled in Iowa bears to the total number of miles traveled both within and without the state.

[Amended August 24, 1962]

22.8(1)-4 [Rescinded August 24, 1962]

22.8(2)-1 Income of nonresidents.

a. Except to the extent provided otherwise in section 422.8(2), all income of nonresidents derived from sources in Iowa is subject to Iowa income tax. Net income received from the carrying on of a business, trade, profession, or occupation in Iowa must be reported. Income from property, trust, estate or other source in Iowa must be reported.

Income from the sale of property (located in Iowa including that used in connection with the trade, profession, business or occupation of the nonresident) is taxable Iowa income. Any income from such property prior to its sale is also taxable income. Income received from a trust or an estate (where such income is from Iowa sources) is taxable regardless of the situs of the estate or trust.

Annuities, interest on bank deposits and interest-bearing obligations, and dividends are allocated to Iowa only to the extent to which they are derived from a business, trade, profession, or occupation carried on within the state of Iowa.

Except that dividends received in lieu of or in partial payment of an amount of wages or salary due for services performed in Iowa by a nonresident shall be considered taxable Iowa income.

b. Income from the sale of property referred to in paragraph "a" above remains taxable Iowa income regardless of the fact that

such property may be removed from Iowa prior to its sale, or regardless of the fact that such sale is consummated outside of Iowa, provided that said property was sold before subsequent use outside of Iowa. [Amended August 24, 1962]

22.8(2)-2 Compensation for personal services of nonresidents.

a. The Iowa taxable income of a nonresident includes compensation for personal services to the extent that such services were rendered within the state of Iowa. In the case of a nonresident of Iowa who is an officer or employee of a corporation that has an office or place of business in the state of Iowa, and does business in this state, and where the nonresident while located outside the state of Iowa performs duties that are connected with the management or conduct of the business of the corporation carried on within the state of Iowa, the salary or other compensation of the nonresident is not subject to the Iowa income tax, but if said nonresident comes into the state of Iowa in a tax year and performs personal services for the corporation or performs any duties in connection with the management of the business, the Iowa taxable income of such nonresident shall include that portion of his total compensation received from his employer for personal services for the tax year which the total number of working days that he was employed within the state of Iowa bears to the total number of working days within and without the state of Iowa. Compensation for personal services rendered by a nonresident of Iowa wholly outside the state of Iowa is not Iowa taxable income in the hands of such nonresident even though payment thereof be made by a resident of Iowa or from the office or other place of business in the state of Iowa of the employer or payor. If a nonresident of Iowa performs personal services within the state of Iowa for an employer only part time or part of his time during a tax year, and performs no personal services for such employer outside the state of Iowa during that year, then his entire compensation for the personal services performed in this state will be Iowa taxable income in the hands of the nonresident and must be reported to this state.

Compensation received from the United States government by nonresidents of Iowa members of the armed forces thereof who are temporarily present in the state of Iowa pursuant to military or naval orders is exempt from the state of Iowa income tax.

b. Income from commissions earned by a nonresident traveling salesman, agent or other employee for services performed or sales made whose compensation depends directly on the volume of business transacted by him, will include that proportion of the compensation received which the volume of business transacted by such employee within the state of Iowa bears to the total volume of business transacted by him within and without the

state, allowable deductions will be apportioned on the same basis. However, in any case where there is a separate accounting kept by a nonresident or his employer of the business transacted in the state of Iowa by the nonresident in connection therewith, then such amount of compensation shall be reported to this state by the nonresident and no apportionment of the total volume of business transacted within and without the state will be permitted.

c. Nonresident actors, singers, performers, entertainers, wrestlers, boxers, etc., must include in their taxable income as income from sources within this state the gross amount received for performances within this state.

d. Nonresident attorneys, physicians, engineers, architects, etc., even though not regularly employed in carrying on their profession in this state, must include in taxable income as income from sources within this state the entire amount of fees or compensation received for services performed in this state on behalf of their clients.

e. If nonresident employees (excluding employees mentioned in subsection "a" of this regulation) are employed continuously in this state for a definite portion of any taxable year, the gross income of the employees from sources within this state includes the total compensation for the period employed in this state.

f. If nonresident employees are employed in this state at intervals throughout the year, as would be the case if employed in operating trains, planes, motor buses, trucks, etc., between this state and other states and foreign countries, and are paid on a daily, weekly or monthly basis, the gross income from sources within this state includes that portion of the total compensation for personal services which the total number of working days employed within the state bears to the total number of working days both within and without the state. If the employees are paid on a mileage basis, the gross income from sources within this state includes that portion of the total compensation for services which the number of miles traveled in Iowa bears to the total number of miles traveled both within and without the state. If the employees are paid on some other basis, the total compensation for personal services must be apportioned between this state and other states and foreign countries in such manner as to allocate to Iowa that portion of the total compensation which is reasonably attributable to personal services performed in this state.

g. A uniform rule for the exclusion from gross income of amounts received by employees under employer-financed accident and health plans is provided in the Internal Revenue Code of 1954 as amended through 1960. A nonresident in reporting Iowa earnings to this state may deduct from his gross Iowa earnings such portion of the amount received under such plans deductible for federal income

tax purposes from his entire earnings as represents the ratio of his Iowa portion of his earnings to the total earnings to which the deductible or excludable amount was connected. [Amended August 24, 1962]

h. The apportionment of income under paragraphs "a", "b", "c" and "f" above will be the responsibility of the employer and the employer's apportionment of such income shall be the basis for assessment of the income tax imposed on the nonresident. [Filed August 24, 1962]

22.8(2)-3 Taxing the earnings of nonresident officers or directors of corporations. In the case of a nonresident who is an officer or director of a corporation that has an office in this state of Iowa, or a place of business in this state, or carries on a business in this state, the compensation of such nonresident for personal services rendered the employer, which may have to do with the management of the business being carried on in Iowa, shall be subject to the Iowa income tax law in the hands of the nonresident only to the extent that such compensation pertains to personal services performed for the employer within the state of Iowa by the nonresident. See the provisions of rule 22.8(2)-2 for instructions as to apportioning such income to the state of Iowa. Allowable deductions from such income must be properly apportioned also.

22.8(2)-4 Income from sources within and without the state. In the case of income derived from any business, trade, profession, or occupation carried on partly within and partly without the state, only such income as is fairly and equitably attributable to that portion of the business, trade, profession, or occupation carried on in this state, or to services rendered within the state, shall be included in the gross income of a nonresident taxpayer. The apportionment and allocation of such income shall be made under rules and regulations prescribed by the commission, which shall in any event, require the entire amount of such income both within and without the state to be shown in the return which the nonresident shall, and must file. If such allocation or apportionment is required, secure the necessary blank from the state income tax division. For definition of "business carried on" see rule 22.4-1 (a).

22.8(2)-5 Apportionment of business income from business carried on both within and without the state.

a. If a nonresident, or a partnership or trust with a nonresident member, carried on business [as "business carried on" is defined in rule 22.4-1 (a)] both within and without the state, the net income therefrom must be so apportioned as to allocate to the state of Iowa a proportion of such income on a fair and equitable basis, in accordance with approved methods of accounting.

b. If books of the taxpayer are not kept in such a manner as to regularly disclose the

proportion of his net income derived from business carried on within this state, then the amount attributable to business within this state shall be in that proportion which the gross sales made within the state bear to the total gross sales. The gross sales within the state shall be taken to be the gross sales made through, from or by offices, agencies, branches, or stores located within the state, regardless of the location of the purchaser or the destination of the goods sold.

c. If the books of the taxpayer are so kept as to regularly disclose the portion of his business income which is derived from sources within this state and it is shown by the taxpayer to the satisfaction of the commission that the income assignable to this state is more clearly and equitably reflected by the separate accounting method, returns on this basis will be accepted. In any event the entire income received by the taxpayer and the basis of allocation shall be shown in his return.

d. If the business, trade, profession or occupation carried on within the state is an integral part of a unitary business carried on both within and without the state, or if the business within the state is so connected with the part without the state that the net income of the part within the state cannot be accurately determined independently of the part without the state, the gross income of the entire business, trade, profession or occupation must be reported. Thus, if a nonresident engaged in the business of manufacturing and selling goods maintains a factory outside the state and sales office in the state, or vice versa, he must report the gross income from the entire business.

22.8(2)-6 Income from intangible personal property.

a. Income of nonresidents from rentals or royalties for the use of, or the privilege of using in this state, patents, copyrights, secret processes and formulas, goodwill, trade-marks, franchises, and other like property is taxable, regardless of whether or not the patent, copyright, etc., has a business situs in this state within the meaning of "c" below, since income arising from the use of property, whether tangible or intangible, within the state is income from sources within the state. Thus, for example, if a resident of New York, who is a patent holder, signs a contract in New York to license the manufacture and sale in Iowa by another person of the patented product in consideration of the payment of royalties on the basis of the number of units manufactured, the royalty income received is taxable. Similarly, if the author of a play, who is a resident of Illinois, receives fees for the public performance of his play in Iowa, the income received is taxable.

b. Income of nonresidents from intangible personal property such as shares of stock in corporations, bonds, notes, bank deposits and

other indebtedness is taxable as income from sources within this state only if the property has a situs for taxation in this state, except that if a nonresident buys or sells stocks, bonds, or other such property in Iowa, places orders in Iowa to buy or sell such property, so regularly, systematically and continuously as to constitute doing business in this state, the profit or gain derived from such activity is taxable as income from a business carried on here, irrespective of the situs of the property for taxation.

c. Intangible personal property has a business situs in this state if it is employed as capital in the state, or if the possession and control of the property has been localized in connection with a business, trade or profession in this state, so that its substantial use and value attach to and become an asset of the business, trade or profession in this state. For example, if a nonresident pledges stocks, bonds or other intangible personal property in Iowa as security for the payment of indebtedness, taxes, etc., incurred in connection with a business in this state, the property has a business situs here. Again, if a nonresident maintains a branch office here and a bank account on which the agent in charge of the branch office may draw for the payment of expenses in connection with the activities of this state, the bank account has a business situs here.

If tangible property of nonresident has acquired a business situs here, the entire income from the property including taxable gains from the sale thereof, regardless of where the sale is consummated, is income from sources within this state.

d. Income of a nonresident beneficiary from an estate or trust, distributed or distributable to the beneficiary out of income from intangible personal property of the estate or trust, is not income from sources in this state and is not taxable to the nonresident beneficiary unless the property is so used by the estate or trust as to acquire a business situs in this state within the meaning of "b" above, or, in the case of royalties, patents, copyrights, secret processes and formulas, good will, trademarks, trade names, franchises and other like property, unless the estate or trust permits or licenses the property to be used in this state in the manner described in "c" above.

Whether or not the executor or administrator of an estate or the trustee of a trust is a resident of this state is immaterial, insofar as the taxation of income of beneficiaries from the estate or trust is concerned.

22.8(2)-7 Federal income tax refunded. Any federal income tax (either paid by a nonresident or withheld from his compensation) which is later refunded to the taxpayer shall be included as gross Iowa income by the nonresident for the year such refund is received, in the same proportion that such federal tax was deducted by the nonresident in a prior Iowa income tax return.

A nonresident shall also include as gross Iowa income any state or local tax refunded to him, if such tax was deducted in a prior Iowa income tax return.

22.8(2)-8 Distributive shares of nonresident partners. A member of an Iowa partnership who is a nonresident is taxable only upon that portion of his distributive share of the partnership income which is derived from sources within this state. However, if the partnership derives any income from sources within the state, the nonresident members of the partnership are taxable upon their distributive shares of such income regardless of whether the partnership sustains losses from property located, or activities or business engaged in, outside this state, and regardless of the amount of such losses, even though such losses equal or exceed the income from sources within this state so that the total operations of the partnership result in a net loss. See rule 22.15(2)-4.

22.8(2)-9 Interest and dividends from governmental securities. Interest and dividends from federal securities subject to the federal income tax under the Internal Revenue Code of 1954, are not to be included in determining the Iowa net income of a nonresident, but any interest and dividends from securities and from securities of state and other political subdivisions exempt from federal income tax under the Internal Revenue Code of 1954, as amended through 1960, are to be included in the Iowa net income of a nonresident to the extent that same are derived from a business, trade, profession, or occupation carried on within the state of Iowa. [Amended August 24, 1962]

22.8(2)-10 Gains from sales or exchange of property. If a nonresident realizes any gains from sales or exchanges of property within the state of Iowa, such gains are subject to the Iowa income tax, and shall be reported to this state by the nonresident. In determining whether a short-term or long-term capital gain is involved, the provisions of the Internal Revenue Code, 1954, as amended through 1960, are to be followed. [Amended August 24, 1962]

22.8(2)-11 Apportionment schedule. Where allocation or apportionment of income is required, the taxpayer should apply to the State Nonresident Income Tax Division, State Office Building, Des Moines 19, Iowa, for form NR-2, apportionment schedule.

22.8(2)-12 Taxpayers moving in or out of the state. A taxpayer moving into the state during the tax year need only report his earnings for the period of residence. This also applies to a person moving out of the state. If itemized deductions are used for federal income tax purposes they must be adjusted to reflect only the deductions attributable to the period of Iowa residence. Federal income tax withheld or paid must be adjusted in the same manner as the income. Personal exemption and credit for dependents need not be pro-rated.

For example, if your income for the years is from one source, reported in one total, use a fraction of the months of out-state residence and subtract that portion of your income from the total reported on line 4, page 1. The remainder will represent your Iowa earned income. If you moved into Iowa August 1, the ratio would be 5/12 Iowa income and 7/12 out-state income. [Amended August 24, 1962]

22.8(3)-1 Net operating loss. Net operating loss carry-backs and carry-overs. In years beginning after December 31, 1954, net operating losses shall be deductible for Iowa corporations and individual income tax purposes to the same extent they are deductible for federal corporation and individual income tax purposes for the same period, provided:

1. The following adjustments shall be made:

a. Subtract interest and dividends from federal securities.

b. Add interest and dividends from foreign securities and from securities of state and other political subdivisions exempt from federal income tax under the Internal Revenue Code of 1954, as amended through 1960.

c. Add federal income tax paid or accrued and subtract Iowa income tax paid or accrued if considered in computing federal adjusted gross or net income.

2. Adjustments shall be made to reflect refunds of federal and Iowa income taxes.

a. In the case of cash basis taxpayers, the refunds of the U. S. income taxes shall be reflected in the return for the year in which the refunds are received.

b. In the case of accrual basis taxpayers, the refunds of U. S. income taxes shall accrue to the year in which the net operating loss occurs.

3. With respect to corporations doing business both within and without Iowa, adjustments shall be made to reflect the apportionment of the operating loss on the basis of business done within and without the state of Iowa.

a. After making the adjustments as provided in paragraphs 1 and 2 hereof, the net operating loss deductible for Iowa income tax purposes shall be that percent of the total loss which represents the business done within the state of Iowa as compared to the total business done by the taxpayer during the year in which the loss occurs.

4. Casualty losses are also treated like a net operating loss and may also be carried back two years and carried forward five years on losses occurring prior to January 1, 1958. Losses occurring after January 1, 1958 may be carried back three years and forward five years. [Filed August 24, 1962]

22.9-1 Allowable deductions — in general. The United States Supreme Court has said: "Whether and to what extent deductions shall be allowed depends upon legislative grace; and only where there is a clear provision therefor can any particular deduction be al-

lowed. * * * Obviously, therefore, a taxpayer seeking a deduction must be able to point to an applicable statute and show that he comes within its terms."

22.9-2 Optional standard deduction. An optional standard deduction is provided in the Iowa income tax law. Before determining the amount of the deduction, federal income tax payments, as adjusted in accordance with rule 22.9-5, must be subtracted from net income. The optional standard deduction is then computed as five percent of the remaining balance, but may not exceed two hundred fifty dollars. (Where joint returns are filed, the optional standard deduction is limited to five percent of net income after deduction of federal income tax, not to exceed two hundred fifty dollars). Where spouses file separate returns, each may take the optional standard deduction of five percent, not to exceed two hundred fifty dollars. In the case of separate returns, if one spouse takes the optional standard deduction, the other spouse must also take the optional standard deduction. If the federal optional standard deduction was taken on the federal return, the optional standard deduction or the Tax Table as provided, for incomes less than \$5,000.00 (choice optional) must be used on the Iowa income tax return. [Amended August 24, 1962]

22.9-3 Itemizing deductions. If deductions were itemized on the federal return, to the extent allowable thereon the same deductions must be itemized on the Iowa return. Deductions are subject to the adjustment specified in rules 22.9-4 through 9-7. [Amended August 24, 1962]

22.9-4 Iowa income taxes. Iowa income taxes paid or accrued during the tax year are permissible deductions for federal tax purposes, but are not for purposes of determining Iowa net taxable income. To the extent such taxes were included in deductions allowable for federal income tax purposes, they must be subtracted on the Iowa return. [Amended August 24, 1962]

22.9-5 Federal income taxes. The amount of federal income taxes paid or accrued during the tax year may not be deducted from income for purposes of federal income tax. Such amount is, however, a permissible deduction for Iowa income tax purposes. Therefore, the amount paid or accrued should be included in deductions. Such totals should include:

1. The entire amount withheld during the taxable year from compensation of the taxpayer for the payment of federal income tax.

2. Tax paid at any time during the taxable year on a return of declared or estimated tax, or on any amendment to such return.

3. Any additional assessment on a prior return paid during the taxable year. Tax paid on final and completed federal income tax return filed by the taxpayers for the preceding taxable year.

4. If during the taxable year, you received a refund of federal income tax withheld from your compensation, or paid by you, that refund must first be used to reduce the amount deducted for federal income tax. [Amended August 24, 1962]

22.9-6 Net operating loss carry-backs and carry-overs. [See 22.8(3)-1, Part 1.] [Amended August 24, 1962]

22.9-7 Soil conservation expenditures. [Rescinded August 24, 1962]

22.9-8 Itemized deductions — separate returns filed by spouses. If one spouse uses the optional standard deduction on his separate return, the other spouse must also use the optional standard deduction. See rule 22.9-2. Where both spouses itemize deductions, the deductions must be divided between them according to the portion thereof paid or accrued, as the case may be, by each or in the ratio that each spouse's separate income bears to the total adjusted gross income of both spouses. A spouse may not deduct an amount for taxes paid on property held in the name of the other spouse. [Amended August 24, 1962]

22.9-10 Verification of deductions required. Deductions from gross income, otherwise allowable, will not be allowed in cases where the commission requests the taxpayer to furnish information sufficient to enable it to determine the validity and correctness of such deductions, until such information is furnished.

22.9-12 Deductions from Iowa income allowed nonresidents.

a. The Iowa income of a nonresident shall be determined in accordance with the provisions of rules 22.8 (2)-1 through 22.8 (2)-12. Such income figure must be arrived at before deductions are taken for federal income tax paid or accrued as the case may be, and before the deductions provided for in subsection "c" hereof are taken in computing the Iowa taxable income of the nonresident.

b. Federal income tax withheld or paid. A nonresident may deduct from his Iowa income a ratio of federal income tax paid and/or withheld in the same year covered by his Iowa nonresident return, in the proportion that the nonresident's income as computed for Iowa income tax purposes bears to his adjusted gross income for federal income tax purposes under the Internal Revenue Code of 1954, as amended through 1960.

Federal income taxes paid during the current year on prior years federal income tax returns will not be allowable on the nonresident return unless nonresident returns have been filed for such prior years.

Example: A nonresident had in 1960 total earnings of \$6,300.00 as a factory worker. Of such amount he earned \$4,200.00 while employed in the state of Iowa. Federal income

tax withheld and paid by him in year 1960 amounted to \$900.00. Ratio of federal adjusted gross income and Iowa income equalled 66- $\frac{2}{3}$ %. Therefore, his deduction from Iowa income for federal income tax paid would be $\frac{2}{3}$ of \$900.00, or the amount of \$600.00. See rule 22.8(2)-7 as to reporting as taxable income any refunds of federal income tax received.

c. Deductions from Iowa income. In computing the Iowa taxable income of nonresident individuals, there shall be deducted from Iowa income the larger of the following amounts:

1. An optional standard deduction of five percent of the Iowa income after deduction of the proper ratio of federal income tax, not to exceed two hundred fifty dollars.

2. The total of contributions, interest, taxes, medical expense, childcare expense, losses and miscellaneous expenses deductible for federal income tax purposes under the Internal Revenue Code of 1954, with the following adjustments:

a. Subtract the deduction for Iowa income taxes.

b. If the nonresident had income for the tax year from both within and without the state of Iowa, then after subtracting the deduction for Iowa income taxes, he may use as a deduction from Iowa income only a ratio of his total of contributions, interest, taxes, etc., representing the proportion that the nonresident's income as computed for Iowa income tax purposes bears to his adjusted gross income for federal income tax purposes under the Internal Revenue Code of 1954. [Amended August 24, 1962]

Example: X, a nonresident of Iowa, had a 1955 federal adjusted gross income of \$12,000.00; his Iowa income being \$6,000.00. His 1955 federal income tax return showed itemized deductions for contributions, interest, taxes, medical expense, and miscellaneous expenses in total sum of \$4,500.00, of which \$150.00 was for Iowa income tax paid. The ratio of his Iowa income to his federal adjusted gross income was 50 percent. Therefore, 50 percent of the total expenses of \$4,500.00 less \$150.00, would be \$2,175.00, the portion of the nonresident's total deductions deductible in computing his Iowa taxable income for the year 1955.

22.9-13 [Rescinded August 24, 1962]

22.12-1 Personal exemption of a single person. A single person may deduct from the computed tax a personal exemption of fifteen dollars. The term "single person" includes, for income tax purposes, an unmarried person, a widowed person, a divorcee, or a married person not living with husband or wife. [Amended August 24, 1962]

22.12-2 Personal exemption of married person.

a. A married person living with husband or wife at the close of the taxable year, or living with husband or wife at the time of the death

of that spouse during the taxable year, may, if a single joint return is filed deduct from the computed tax a personal exemption of thirty dollars. Where each spouse files a separate return, each is entitled to deduct from the computed tax a personal exemption of fifteen dollars. The personal exemption may not be divided between the spouses in any other proportion.

b. Whether a husband and wife are living together must depend upon the character of the separation, if they are not in fact together. If merely occasionally or temporarily a wife is away on a visit, or a husband is absent from home on business, or in the armed forces, the joint home being maintained, they will be considered living together. The unavoidable absence of a wife or husband at a sanatorium or asylum on account of illness does not invalidate the exemption. If, however, the husband voluntarily and continuously makes his home at one place and the wife at another, they are not living together within the meaning of the act. A resident alien with a wife abroad is not entitled to the joint exemption.

c. A nonresident taxpayer will be allowed to deduct a personal exemption for the entire year. [Amended August 24, 1962]

22.12-3 Personal exemption for old-age or blindness. For federal income tax purposes additional personal exemptions are authorized if the taxpayer or his spouse is blind or is over sixty-five. The Iowa income tax law does not authorize personal exemptions of this type. [See 60GA, ch 259]

22.12-4 Credit for dependents. A taxpayer may deduct from his computed tax an exemption of seven and one-half dollars for each dependent. "Dependent" has the same meaning as provided by the Internal Revenue Code of 1954, and the same dependents may be claimed for Iowa income tax purposes as the taxpayer is entitled to claim for federal income tax purposes. The dependent credit on tax is to be taken by the spouse, furnishing the major portion of the support for the dependent. If each spouse furnished fifty percent, they may elect between them which spouse is to be entitled to claim the dependent. The dividing of dependent credits applies only to the number of dependents and not to the money credits for a particular dependent. [Amended August 24, 1962]

22.12-5 Head of household. A head of household is a single individual (single meaning unmarried, divorced or widowed), who during the taxable year furnished over half of the cost of maintaining a household for the entire year for at least one relative.

Your father or mother must qualify as your dependent and must live in a home you maintain for him or her. It is not necessary that you or your parent live in the same household. However, maintaining a parent in a home for the aged is not maintaining a household for such parent.

Your unmarried child, grandchild or stepchild must live in your household which you maintain as the principal residence for both you and them. It is not necessary that such person qualify as a dependent in order for you to claim head of household benefit for the double exemption only, if you maintain the home for them.

All other relatives must live with you in your household and must qualify as your dependents.

DO NOT CLAIM THIS UNLESS YOU CLAIMED TO BE HEAD OF HOUSEHOLD ON YOUR FEDERAL RETURN.

The surviving spouse rule provided by the federal law does not allow the double exemption for any year following the death of the deceased spouse. Iowa regulation will permit under this rule by the federal the privilege of head of household classification. [Filed August 24, 1962]

22.13-1 Return by resident individual taxpayer.

a. For each taxable year every resident of Iowa, single or married and not living with spouse, whose taxable income as defined in Code section 422.7 is one thousand five hundred dollars or over, must make, sign and file a return.

Every married individual having a taxable income for the taxable year of two thousand three hundred fifty dollars or over must make, sign and file a return.

Husband and wife, each having independent income, must file either a joint return or separate returns if their aggregate net income for the taxable year was two thousand dollars or over.

b. In determining whether returns must be filed, income from all sources, taxable under this division, in the case of residents, must be considered; in the case of nonresidents, only income from sources within this state should be considered. If the status of a person as a resident or nonresident changes during the taxable year, returns are required if the sum of the income, from sources taxable, received or accrued, during the period the person was a resident, and the income from sources within this state, received or accrued, during the period the person was a nonresident, equals or exceeds the amounts specified in "a" above.

c. Whether or not an individual is the head of a household or has dependents is immaterial in determining his liability to render a return.

d. If separate returns are filed by husband and wife, each may include in his return only such income as is attributable to him in accordance with the provisions of those regulations. Each may claim one-half of the credit for personal exemption.

e. Return of taxpayer for the year in which he died, see rule 22.6-5.

f. If a taxpayer is unable to make his own return, the return shall be made by a duly authorized agent or by the guardian or other person charged with the care of the person or

property of such taxpayer. A power of attorney must accompany a return made by an agent.

g. A return not signed by the taxpayer or his authorized agent, or not accompanied by such portion of the tax as is by law required to be paid at the time of filing of the return, shall not be deemed completely executed and filed as required by law.

h. Each taxpayer having a social security number must enter that number on his return at places indicated. If not so entered the return may be considered not completed.

i. Each taxpayer receiving wages, salaries, or other taxable income must attach to his return, filed with the state tax commission, a copy of information at source form, showing such income. [Amended August 24, 1962]

22.13-2 Amended returns changing basis of reporting income. Although husband and wife originally filed a joint return or separate returns they, after the due date for filing that return or those returns, will be permitted to file amended separate returns or an amended joint return as the case may be. An election to file joint or separate returns may be made anew each year regardless of election of prior year. [Amended August 24, 1962]

22.13-3 Amended returns. Whenever a taxpayer who has filed a return for Iowa income tax purposes files an amended return for federal income tax purposes for the same year, he shall also file an amended return for Iowa income tax purposes.

22.13-4 Due date for returns. The due date for filing income tax returns is the last day of the fourth month after the end of the taxable year, whether the return be on the basis of the calendar year or a fiscal year. The due date for filing returns of information on forms IT-5 and IT-5A and returns of withholding agents on forms NR-5 and NR-5A is the last day of the fourth month after the close of the calendar year. Returns not filed on or before the due date will be subject to penalties for delinquency.

22.13-5 Method of accounting; accounting period. The return is to be computed on the same basis and for the same accounting period as the taxpayer's return for federal income tax purposes. Where the director of internal revenue has consented to permit taxpayer to change the basis of his returns or his accounting period, a copy of that consent must be filed with the state tax commission.

22.13-6 Copy of federal income tax return to be filed by nonresident. Under the provisions of section 12, chapter 208, Acts of 55th General Assembly (Code section 422.13 amended), a nonresident taxpayer shall file a copy of his federal income tax return for the current tax year with his Iowa nonresident income tax return. Such copy shall include full and complete copies of all farm business,

capital gains and other schedules that were filed with such federal return. Such copies are to be accompanied by a written statement by the nonresident setting forth that they represent true and complete copies of his federal return.

However, in those cases where the nonresident has only Iowa wage or salary income to report and elects to take the optional standard deduction of five percent of Iowa net income not to exceed two hundred fifty dollars, he may omit filing a copy of his federal return provided he completely lists his items of adjusted gross income for federal income tax purposes on his Iowa nonresident return, but in such cases, if the audit of such nonresident return reveals that a copy of the nonresident's federal return is necessary to complete such audit, the copy shall be furnished by the nonresident upon his receiving a request therefor.

22.15(1)-1 Returns of information—where filed. Returns of information, as required by section 422.15 relating to returns of information and by section 422.16, relating to withholding of nonresidents income, shall be made on forms IT-5, IT-5A and IT-5B. In the case of residents these forms should be delivered to the State Income Tax Division, State Office Building, Des Moines 19, Iowa, on or before the last day of the fourth month after the close of the calendar year for which the returns are made. In the case of nonresidents, such forms must be submitted on or before January 31, following the close of the calendar year for which such returns are made, and must accompany the withholding agent's reconciliation form NR-5.

In the case of nonresidents of Iowa, the amount reportable by the employer on information returns shall be the income to be reported by such nonresident on his income tax Form NR-1. The method of apportionment of the income to such nonresident for Iowa income tax purposes is contained in rules 22.8(2)-2 and 22.8(2)-3. Although, to make necessary a return of information the income must be fixed and determinable, it need not be annual or periodical. It must be made of any payment which will constitute taxable income to the recipient. The commission may require any person or organization acting at any time during the year as a broker or other agent in stock, bond, or commodity transactions to report the name and address of each customer or client during the preceding taxable (or calendar) year, together with an itemized statement of cost, selling price, and gain or loss involved in each individual transaction during any preceding calendar year. [Amended August 24, 1962]

22.15(1)-2 Who shall make returns of information. Returns of information shall be made to the state tax commission by every

a. resident of the state and every nonresident carrying on a business, trade, etc., in the state;

b. officer and employee of the state and of municipal corporations and political subdivisions of the state;

c. officer or employee of the United States and of its agencies and instrumentalities;

d. individual, partnership, estate, trust, and corporation maintaining an office or place of business in this state (whether or not a paying agency is maintained within the state and whether or not such entities are exempt from taxation under the Iowa income tax law) making payments in a calendar year of fixed or determinable income of one thousand dollars or more to any individual. If payments made to nonresidents were subject to withholding, a form IT-5A or IT-5B must be submitted regardless of the amount of income. [Amended August 24, 1962]

22.15(1)-3 What is included in calculating amounts for returns of information.

a. Returns of information are required of all amounts paid or credited to one payee, if such payments aggregate the minimum amount specified for such returns during the calendar year, irrespective of the basis of reporting by the payor or by the payee, including income constructively received by the payee. The necessity of reporting is not limited to payments of income of a single kind, equaling or exceeding the required amounts, but information returns are required if the aggregate payments of income of all kinds (including living quarters and/or board furnished) on which information returns are required, equal or exceed one thousand dollars. For example, if a payor pays to a payee nine hundred dollars for personal services, three hundred dollars for rent and fifty dollars for interest, he is required to report such payments on forms IT-5, IT-5A or IT-5B as the aggregate of the payments equal one thousand two hundred fifty dollars. Or, if an employee received compensation of nine hundred dollars and is furnished living quarters and board worth three hundred sixty dollars, the total amount which must be reported will be one thousand two hundred sixty dollars.

b. Fees for professional services to attorneys, physicians, and members of other professions, and taxable payments for commodities come within the meaning of "fixed and determinable income" and are required to be reported in returns of information as required by this regulation.

c. For the purpose of a return of information, an amount is deemed to have been paid when it is credited or set apart to the taxpayer.

d. Corporations are required to report payments of dividends in amounts of one hundred dollars or over. [Amended August 24, 1962]

22.15(1)-4 Payments of which no return of information required. Payments of the following classes need not be reported on returns of information:

a. Interest coupons payable to bearer.

b. Income specifically exempt from taxation.

c. Bills paid for merchandise, telegrams, freight, storage, and similar charges.

d. To employees for board and lodging while traveling in the course of their employment, where such payments are in reimbursement of expenses paid by such employees.

e. Of rent paid to real estate or rental agencies (but the agent must report payment to the landlord if the aggregate amount for the calendar year is large enough to require a return of information to be filed).

f. Distribution by partnerships to resident partners and by fiduciaries to resident beneficiaries. Fiduciaries must submit information forms if any of the distributions made are to nonresidents and are subject to withholding under section 422.16.

g. Annuities representing the return of capital. But interest or other accumulations in excess of one thousand dollars for the calendar year must be reported.

h. To nonresident employees for services rendered entirely without the state.

i. To nonresidents of annuities, interest on bank deposits, interest on bonds, notes or other interest bearing obligations or dividends, unless received by the nonresident in connection with a business, trade, profession or occupation carried on in this state, subject to taxation under division II of this Act. [Amended August 24, 1962]

22.15(1)-5 Penalty for failure to make returns of information. Where returns of information are not made as required by the law, the taxpayer required to make such returns will not be permitted to deduct from his gross income any amounts for which returns of information are delinquent; and the return of such taxpayer will not be considered properly filed until such required returns of information have been made.

22.15(1)-6 Returns of information — how made. Returns of information shall, in all cases, be made for the calendar year. The returns shall be made on forms IT-5A and IT-5B for both residents and nonresidents. In the case of residents a verified summary IT-5 shall accompany the IT-5A and IT-5B, and such report shall be due on or before April 30 of the year following the year of payment. In the case of nonresidents, such form shall be submitted with reconciliation form NR-5 (withholding agent's reconciliation report) and shall be due on or before January 31 of the year following the year of payment.

THE SOCIAL SECURITY NUMBER must appear on all forms IT-5A and IT-5B. [Amended August 24, 1962]

22.15(2)-1 Partnerships and limited partnerships. The partnership or limited partnership required to file a return under the provisions of Code section 422.15(2) shall be a partnership or limited partnership required to file

partnership return for purposes of federal income tax. If the partnership has elected for federal income tax purposes to be taxable as a corporation, it shall be so taxable for purposes of Iowa income tax. In addition the partnership shall be required to have filed a partnership agreement with the county auditor of the county in which the partnership is located, or said partnership shall be required to have a partnership income tax return on file with the district director of the internal revenue service. [Amended August 24, 1962]

22.15(2)-2 Distribution and taxation of partnership income. A partnership as such is not taxable under the Act but the members of a partnership (including limited partnerships organized under chapter 545) are taxable (except as otherwise provided in rule 22.8(2)-9 respecting nonresident members) upon their distributable shares of the net income of the partnership whether distributed to them or not, and despite the fact that he or they employ an accounting basis (cash receipts, for example) different from that of the partnership (accrual basis, for example). If the result of the partnership operation is a net loss (i.e., excess of allowable deductions from gross income) the loss may be deducted by the partners (except as otherwise provided respecting nonresident members) in the same proportion that net income would have been taxable to the partners. If the partner reports his income on the same taxable year basis as that of the partnership, his distributable share of the net income (or loss) of the partnership for such taxable year shall be included in or deducted from gross income in his individual return for that year. If, however, the taxable year of the partner is different from that of the partnership, his distributable share shall be included in or his proportion of the loss deducted from gross income for the year in which the taxable year of the partnership ends.

22.15(2)-3 Partnership returns. Every partnership deriving income (a) from property owned within this state or (b) from a business, trade, profession or occupation carried on within the state, must make a return of income regardless of the amount of gross or net income and regardless of the residence of the partners, except as specified in rule 22.15(2)-1. The return shall be made on form IT-3 and signed by one of the partners. The return shall be made on the same period basis, calendar or fiscal, as the partnership accounts are kept, irrespective the partners are reporting their incomes on a different period basis.

22.15(2)-4 Contents of partnership return. The return of a resident partnership or of a partnership with one or more nonresident members, but whose income is derived entirely or partially from sources within this state, shall state specifically (a) the net income, and the capital gains or losses reported on the federal partnership return, (b) the names and addresses of the partners, and (c) their respective shares in said amounts.

22.15(2)-5 General provisions as to partnerships.

a. A partnership engaged in carrying on business in this state is an Iowa partnership. Its return must state the entire net income and capital gains or losses reported on the federal partnership return, regardless of the source of the same.

b. The distributable share of a resident of Iowa, of the income of a partnership carrying on business in another state, constitutes taxable income to him, except in cases governed by the provisions of Code section 422.8(1).

22.16-1 Duties of withholding agent. Withholding is required in the manner set forth under paragraph 12 hereof on income derived by nonresidents from the following sources:

1. Personal service, including salaries, wages, commissions and fees for personal service wholly performed within this state and such portions of similar income of nonresident traveling salesmen or agents as may be derived from services rendered in this state.

2. Rents and royalties from real or personal property located within this state.

3. Interest or dividends derived from securities or investments within this state, when such interests or dividends constitute income of any business, trade, profession or occupation carried on within this state and subject to taxation under the Act.

4. Income derived from any business of a temporary nature carried on within this state by a nonresident, such as contracts for construction and similar contracts.

5. The distributive share of a nonresident beneficiary of an estate or trust, limited, however, to the portion thereof subject to Iowa income tax in the hands of the nonresident.

6. Income derived from sources within this state by attorneys, physicians, engineers, accountants, etc., as compensation for services rendered clients in this state.

7. Compensation received by nonresident actors, singers, performers, entertainers, wrestlers, etc., for performances in this state.

8. The income of nonresidents employed in operating trains, boats, planes, motor buses, trucks, etc., within the state, who are paid on a daily, weekly or monthly basis. The gross income of such employees subject to withholding will include that portion of the total compensation of such employees which the total number of working days employed within the state bears to the total number of working days both within and without the state; and if the employment is on a mileage basis, the income apportionable to Iowa and subject to withholding will be similarly apportioned.

9. The gross income of a nonresident (not engaged in carrying on a business, trade, profession or occupation on his own account, but employed and receiving compensation for his services) includes compensation for personal services only, if and to the extent that, such

services are rendered within this state. Compensation for personal services rendered by a nonresident wholly without the state is excluded from gross income of the nonresident regardless of the fact that payment of such compensation may be made by a resident individual, partnership or corporation.

10. The gross income from commissions earned by a nonresident traveling salesman, agent or other employee for services performed or sales made whose compensation depends directly on volume of business transacted by him, includes that proportion of the total compensation received which the volume of business or sales by such employee within this state bears to the total volume of business or sales within and without the state.

11. Payments made to landlords by agents, including elevator operators, for grain or other commodities which have been received by the landlord as rent constitute taxable income of the landlord when sold by him.

12. The law contains special provisions with respect to the collection of income tax due on income derived from sources in Iowa by nonresidents of the state of Iowa by requiring that certain percentages of such Iowa gross income be withheld at source.

The term "withholding agent" means any individual, fiduciary, corporation, association or partnership in whatever capacity acting, including all officers and employees of the state or of any municipal corporation or political subdivision of the state that is obligated to pay or distribute or has control of paying or distributing any Iowa gross income (not specifically exempt from Iowa income tax to nonresidents of Iowa) in excess of one thousand five hundred dollars in any calendar year to any nonresident of Iowa.

Excepting as provided herein and in rules 22.17-1, every withholding agent shall deduct and withhold in each calendar year four percent of all gross income in excess of one thousand five hundred dollars, which such withholding agent pays or distributes, including the four percent so withheld, to any nonresident of Iowa during such calendar year, provided, however, that all income derived entirely from salaries or wages not exceeding four thousand dollars the amount withheld shall be two percent. In lieu of the percentages heretofore set forth, the commission is authorized and has prepared withholding tables to be used in cases of payment of wages or salaries to nonresidents. These tables may be acquired by writing to the nonresident section of the Iowa Income Tax Division, State Tax Commission, State Office Building, Des Moines, Iowa. [Amended August 24, 1962]

22.16-2 Where only one percent of income is required to be withheld. In the case of a business carried on within this state, the income of which is subject to withholding, the Act provides that the nonresident taxpayer may file with the commission a verified statement, in such form and containing such in-

formation as the commission shall prescribe, showing that any income therein described is derived from a source upon which the net income will be less than twenty percent of the gross income, whereupon the commission, if satisfied that such statement is correct, shall give to the nonresident a certificate directing a designated withholding agent to withhold but one percent of the income described in such certificate in excess of seventy-five hundred dollars. [Amended August 24, 1962]

22.16-3 Returns by withholding agents. Withholding agents are required to make and file certain returns. The Act prescribes that returns shall be made upon the basis of each calendar year on such forms and at such times throughout the year as the commission shall prescribe. The commission has, effective for the calendar year 1963 (and subsequent years), ordered that all withholdings deducted from payments made to nonresidents shall be remitted to the income tax division, nonresident section, in quarterly payments as follows:

Withholdings made during the months of January, February, and March, due on or before April 30.

Withholdings made during the months of April, May, and June, due on or before July 31.

Withholdings made during the months of July, August, and September, due on or before October 30.

Withholdings made during the months of October, November, and December, due on or before January 31 of the following year.

Withholdings shall be remitted with form NR-5A, and a form NR-5A must be submitted for each quarter even though no withholdings were made during such quarter. A summary of the four quarters of withholding must be made at the end of each calendar year. Form NR-5 should be used for this purpose. A copy of each IT-5A or IT-5B, as given to the nonresident employee or payee, must accompany form NR-5. Remittance for each quarterly payment of withholding should be made to the treasurer of the state of Iowa. Withholding agents shall prepare and forward to each nonresident employee or payee a form IT-5A or IT-5B, regardless of the amount of income involved, if withholding has been deducted from payments made. [Amended August 24, 1962]

22.16-4 Requirements for filing Iowa nonresident returns.

a. Every nonresident individual having a taxable income for the tax year from Iowa sources taxable under the Iowa income tax law as amended, of one thousand five hundred dollars or over, if single, or if married and not living with husband or wife; or having such a taxable income for the tax year of two thousand three hundred fifty dollars or over, if married and living with husband or wife, shall make and sign a return. [Amended August 24, 1962]

b. If husband and wife living together have an aggregate taxable Iowa income of two

thousand dollars or over, each shall make such a return, unless the income of each is included in a single state of Iowa joint return. [Amended August 24, 1962]

c. Form NR-1 shall be used by nonresidents in reporting Iowa income to this state. Such form may be obtained by applying to the Iowa Nonresident Income Tax Division, State Office Building, Des Moines 19, Iowa. Completed returns are to be filed with or mailed to that same Division on or before the last day of the fourth month after the expiration of the nonresident's tax year. If Iowa tax is due, the return must be accompanied by remittance payable to Treasurer of State of Iowa.

22.17-1 Requirements as to filing bond and securities. Any nonresident who elects to file with the commission the bond referred to in Code section 422.17, should first inform the nonresident income tax division of the state tax commission as to the amount of gross Iowa income that he expects to have for the named taxable year, and as to the sources of such income, so that such division may fix the penalty of the bond in an amount ample to meet the statutory requirements. The bond form may be obtained from said Division, and in executing the bond the nonresident shall sign same as principal and the surety shall be a surety company authorized to transact business in the state of Iowa, and approved by the insurance commissioner of Iowa. A power of attorney for the attorney-in-fact who executes the bond on behalf of the surety company, as surety, must accompany the bond, and if that attorney is a nonresident of this state, the bond must then be countersigned by an Iowa resident agent of the surety company, in accordance with section 515.52 of the 1954 Iowa Code. Upon the filing and approval of such bond by the commission, a certificate will be issued to withholding agents whose names and addresses are furnished to the nonresident income tax division, authorizing such withholding agents to pay to the nonresident during a specified period any sums which may be due such nonresident not in excess of an amount fixed in such certificate.

22.18-1 [Rescinded August 24, 1962]

22.21-1 Time and place for filing return. A return of income must be filed on or before the last day of the fourth month following the close of the taxpayer's taxable year, whether the return be made on the basis of the calendar year or for a fiscal year. The due date is the last day upon which a return is required to be filed, or the last day of the period covered by an extension of time granted by the commission. When the due date falls on Sunday or a legal holiday, the return will be due the day following such Sunday or legal holiday. If placed in the mails the return should be posted in ample time to reach the income tax division, under ordinary handling of the mails on or before the date on which the return is required to be filed.

Mailed returns should be addressed to the STATE INCOME TAX DIVISION, State Office Building, Des Moines 19, Iowa. (Such form of address is desirable in order to prevent returns being misdirected to the federal income tax department.)

If a return is placed in the mails, properly addressed and postage paid, in ample time to reach the income tax division on or before the due date for filing, no penalty will attach should the return not be received until after that date.

22.21-2 Extension of time for filing returns. It is important that the taxpayer render, on or before the due date, a return as nearly complete and final as it is possible for him to prepare. However, when good cause exists by reason of sickness, unavoidable absence, or otherwise, the commission is authorized to grant an extension of time in which to file such return, provided the taxpayer files form IT-8, or in the case of corporations form IT-136, in triplicate.

In no case shall an extension exceed three months, except in cases where taxpayer is abroad. The application for an extension must be made prior to the due date of the return, or before the expiration of an extension previously granted. As a condition to granting an extension of time, the commission may require that a tentative return be filed and the payment of the first installment of tax shown due on that return, if that tax is over fifty dollars; if fifty dollars or less the full amount is to be paid. If the time for filing is extended and the tax payable is over fifty dollars, interest at six percent per annum from date the return originally was required to be filed to date of actual payment on one-half of the total tax is to be paid by taxpayer; if the total tax is fifty dollars or less, interest is to be computed on full amount of tax. An extension of time to file return does not extend the time for payment of the second installment. [Amended August 24, 1962]

22.21-3 Payment of tax by uncertified checks. The income tax division will accept uncertified personal checks in payment of income taxes, provided such checks are collectible at par, that is, for their full amount without any deduction for exchange or other charges. The date on which the income tax division receives the check will be considered the date of payment, so far as the taxpayer is concerned, unless the check is returned dishonored. If one check is remitted to cover two or more persons' taxes, the remittance must be accompanied by a letter of transmittal stating (a) the name of the drawer of the check; (b) the amount of the check; (c) the amount of any cash, money order or other instrument included in the same remittance; (d) the name of each person whose tax is to be paid by the remittance; and (e) the amount of payment on account of each person.

22.21-4 Procedure with respect to dishonored checks. If any check is returned unpaid,

all expenses incident to the collection thereof will be charged to the taxpayer. If any taxpayer whose check has been returned by the depository bank uncollected should fail at once to make the check good, the commission will proceed to collect the tax as though no check had been given. A taxpayer who tenders a certified check in payment for taxes is not relieved from his obligation until the check has been paid.

22.21-5 Time and manner of payment of tax.

The tax must be paid in full at the time of filing the return or, if the tax amounts to more than fifty dollars, it may, at the taxpayer's option, be paid in two equal installments, one-half to be paid when the return is filed and one-half to be paid on or before the last day of the sixth month after the due date for filing the return. If the amount of the tax is fifty dollars or less, it must be paid in full when the return is filed.

No interest will be added to the deferred payment, unless it is not paid within the required time, in which case interest at six percent per annum from date of second installment became due to date of payment will be added to the balance of tax.

If the portion of the tax required by this regulation to be paid at the time of filing is not so paid, the return shall be considered not to have been filed until the required payment has been made. [Amended August 24, 1962]

22.21-6 Limitation on installment payments.

The privilege of paying the tax in two equal installments is permitted only in cases where the return is timely filed. The privilege of paying a tax in installments does not apply to additional assessments.

22.21-7 Certification of correctness of the return. The return shall be authenticated by a signed declaration of its correctness. The return may be made by an agent if the taxpayer is (a) too ill to make it or (b) is absent from the state for sixty days before the due date. A power of attorney must accompany the return made by an agent. The person or persons actually preparing the return (if other than the taxpayer or his agent) must also sign the declaration. Verification by oath is not required.

22.21-8 Optional method of filing. Pages 1 and 2 of form IT-1, if properly completed may be filed as a short-form return, IF A COMPLETE FACSIMILE OR PHOTOCOPY OF YOUR FEDERAL RETURN AND SUPPORTING SCHEDULES IS ATTACHED.

To properly complete the short-form method:

1. Enter Adjusted Gross Income (Form 1040, page 1) at line 9, page 1, of your return. (In the event your Federal Adjusted Gross Income includes income not subject to Iowa income tax, or you have income subject to Iowa income tax but not to federal income tax—attach a schedule of such income, and enter the amount shown on form 1040 as adjusted on that schedule.)

2. If deductions were itemized on form 1040 enter the total of itemized deductions (Page 2, form 1040), less the Iowa income tax included in that total, at line 12, page 1, of your state return.

3. It will not be necessary to complete lines 4 through 8, page 1. You are required, however, to use all other lines from 10 through 18.

If you choose this method of preparing the return, failure to comply with the above requirements will constitute an incomplete return. [Amended August 24, 1962]

22.21-9 Use of and completeness of prescribed forms. Returns shall, in all cases, be made by residents, nonresidents, fiduciaries, partnerships and corporations on forms supplied by the tax commission. When a taxpayer elects to submit alternative forms, the prescribed form, including all schedules and questionnaires, must also be completed. Taxpayers not supplied with the proper forms shall make application for same to the commission or to any county treasurer or field auditor, in ample time to have their returns made, verified and filed on or before the due date. Each taxpayer shall carefully prepare his return so as to fully and clearly set forth the data required. Imperfect, incorrect or incomplete returns will not be accepted as meeting the requirements of the statute. For lack of a prescribed form, a statement made by a taxpayer disclosing his gross income and the deductions therefrom may be accepted as a tentative return, and if verified and filed within the prescribed time, will relieve the taxpayer from liability to penalties, provided that without unnecessary delay such a tentative return is replaced by a return made on the proper form. Each question shall be answered and each direction complied with in the same manner as if the forms and instructions were embodied in these regulations. [Amended August 24, 1962]

22.21-10 List of forms. The following forms prescribed by the commission, are available to taxpayers:

Form IT-1	Resident individual return.
Form IT-2	Corporation return.
Form IT-3	Partnership return.
Form IT-4	Fiduciary return.
Form IT-5	Summary of reported payments to residents.
Form IT-5A	Information at source (residents).
Form IT-6	Claim for refund of tax.
Form IT-8	Extension of time request.
Form IT-13	Travel expense schedule.
Form IT-136	Corporation extension of time request.
Form NR-1	Nonresident individual return.
Form NR-2	Allocation of fiduciary and partnership income of nonresidents.
Form NR-5	Summary of withholding of income payable to nonresidents.
Form NR-5A	Return of withholdings from nonresidents. [Amended August 24, 1962]

22.22 Supplementary returns. If within the regular or legally extended statutory period for audit, it becomes known to the taxpayer that the amount of income reported to be federal adjusted gross or federal net income, was erroneously stated on the Iowa return, or changed by internal revenue service audit, or otherwise, the taxpayer shall file a supplementary return with supporting schedules. A copy of the revenue agent's report will be acceptable in lieu of a supplementary return. [Filed August 24, 1962]

22.25-1 Power to examine and audit may be delegated. Code section 422.25 (1) provides that the commission shall examine returns within three years and determine the correct amount of the tax. Section 422.25 (1) permits the determination of the correct amount of the tax within the limits of the statute of limitations if the commission discovers from any source that all or portions of the income have been omitted either through understatement of net income or overstatement of deductions. Section 422.64 permits the commission to appoint and remove such agents, auditors, clerks and employees as it deems necessary, and to prescribe the duties of such persons. The commission hereby delegates to the director of the income tax division the power to examine return and make audits; and to determine the correct amount of tax due, subject to review by the commission or appeal to the commission. The power so delegated may further be delegated by the director to such auditors, agents, clerks and employees of the income tax division as he shall designate. [Amended August 24, 1962]

22.25-2 Notice of discrepancies. An agent, auditor, clerk or employee of the income tax division, designated by the director to examine returns and make audits, who discovers discrepancies in returns or learns that the income of the taxpayer may not have been listed, in whole or in part, or that no return was filed when one was due, is authorized to notify the taxpayer of his discovery by ordinary mail. Such notice shall not be termed an assessment. It may inform the taxpayer what amount would be due from him if the information discovered is correct.

22.25-3 Right of taxpayer upon receipt of notice of discrepancy. A taxpayer who has received notice of a discrepancy in connection with a return may pay the additional amount stated to be due. If payment is made, and the taxpayer wishes to contest the matter, he should then file claim for refund. However, payment will not be required until assessment has been made (although interest will continue to run if payment is not made). If no payment is made, the taxpayer may discuss with the agent, auditor, clerk or employee who notified him of the discrepancy, either in person or through correspondence, all matters of fact and law which he considers relevant to the situation. Documents and records supporting his position may be required.

22.25-4 Power of agent, auditor, etc., to compromise tax claims. No employee of the commission has the power to compromise any tax claims. The power of the agent, auditor, clerk or employee who notified taxpayer of the discrepancy is limited to the determination of the correct amount of tax.

22.25-5 Review of director. In the event taxpayer and the agent, auditor, clerk, or employee cannot agree as to the correct amount of tax, and taxpayer refuses to pay the amount determined to be correct, the matter may be referred to the director for review.

22.25-6 Formal notice of assessment. If following review no agreement is reached, and taxpayer does not pay the amount determined to be correct, a formal notice of assessment shall be sent to the taxpayer by certified mail. Also, if the period in which the correct amount of tax can be determined is nearly at an end, a formal notice of assessment may be sent without compliance with rules 22.25-3, 4 and 5, or a jeopardy assessment may be made under the provisions of section 422.30. All formal notices of assessment shall be signed either by the chairman or the vice-chairman of the commission. [Amended August 24, 1962]

22.25-7 Compromise of tax, interest or penalty. The commission does not have power to compromise, waive or reduce any income tax, or any penalty or interest thereon, except as provided in section 422.25 (3), 1958 Code, as amended. The executive council of the state of Iowa, under the provisions of section 19.9, does have power to compromise claims in favor of the state which are of doubtful equity or collectibility. Taxpayers seeking the advantage of section 19.9 should submit their offer of compromise in writing to the state tax commission, and should set forth reasons justifying the making of the compromise. Each offer should be accompanied by a draft or certified check for the amount offered in compromise. [Amended August 24, 1962]

22.25-8 Periods of limitation.

a. In case errors in computing taxable income and tax due are apparent on the return itself, the correct amount of tax due may be determined by the commission within three years from the time the return is filed. If a transaction has been fully disclosed in the return or on a schedule or statement incorporated with the return, so that upon examination of the return the proper treatment of the transactions could be ascertained, but it was incorrectly reflected in taxable income on the return, the three-year limitation is applicable.

b. If a taxpayer fails to include in his return such items of gross income as defined in the Internal Revenue Code of 1954, as will under that Code extend the statute of limitations for federal tax purposes to six years, the correct amount of tax due may be determined by the commission within six years from the time the return is filed.

c. If a taxpayer files a false or fraudulent return with intent to evade tax, the correct amount of tax due may be determined by the commission at any time after the return has been filed.

d. While the burden of proof of additional tax owing under the six-year period or the unlimited period is upon the commission, a prima facie case of omission of income, or of making a false or fraudulent return, shall be made upon a showing of a federal audit of the same income, a determination by federal authorities that the taxpayer omitted items of gross income or made a false or fraudulent return, and the payment by the taxpayer of the amount claimed by the federal government to be the correct tax or the admission by the taxpayer to the federal government of liability for that amount.

e. Subsections "b" and "c" do not apply to returns for tax years beginning before January 1, 1949. [Amended August 24, 1962]

22.27-1 Certificate of acquittance. Issuance of the certificate of acquittance referred to in section 422.27, Iowa Code, 1958, as amended, is entirely dependent on the fulfillment of the obligations imposed on the fiduciary under applicable sections of the law and rules created thereunder. Specific rules are shown as 22.6-1, 2, 3, 4, 5, 6, 7, 8 and 9. Failure to comply with the requirements of these rules or relative sections of the law will result in denial of the certificate of acquittance until such requirements are met. [Filed August 24, 1962]

22.28-1 Manner of filing appeals to the commission.

1. Appeals to the state tax commission should be in writing and should be addressed to the STATE INCOME TAX DIVISION, State Office Building, Des Moines 19, Iowa. An appeal should set forth all facts upon which the appellant intends to rely, together with a statement of the reasons of the appellant for making such appeal.

2. If taxpayer desires a personal hearing, notice to that effect should be given, whereupon the commission will set a date for such hearing and the taxpayer will be notified of such a date.

22.28-2 Hearings—who may appear. At any hearing the taxpayer may appear and present his appeal in person. He may be present and may have his case presented by his attorney or accountant.

22.28-3 Hearings—burden of proof. A taxpayer who has appealed has the burden of proof that the assessment levied against him is incorrect, and in what respects it is incorrect.

22.28-4 Hearings—who before. Hearings on appeal shall be held before the commission. At least two members of the commission must be present.

22.28-5 Record—evidence. Hearings usually will be informal, but where it is considered

necessary, a formal record may be made. Evidence presented need not be formally introduced nor objected to by any party to the hearing. In the discretion of the commission, relevant evidence, which is because of its nature inadmissible in a court of law, may be introduced. All evidence in the files of the commission shall be available to the commission. However, the taxpayer should be informed of the substance of any documents or other evidence of which he has not been apprised, and he should have opportunity to rebut such evidence.

22.28-6 Remand to auditor, agent, clerk or employee. If from the hearing it appears that the matters at issue can be settled between the auditor, agent, clerk or other employee who initially determined that the return was incorrect or was not filed, and the taxpayer, the commission may remand the matter to the auditor, agent, clerk or other employee without decision. Such action shall not be taken if protested by the taxpayer.

22.28-7 Decision. Unless the matter on appeal is remanded in accordance with rule 22.28-6, the commission shall render a decision thereon within a reasonable period of time. (Payment of the assessment after hearing and before decision shall be deemed a waiver of decision.) The determination of the commission shall be in the form of a findings and order, setting forth sufficiently to apprise the taxpayer of the reasons for the determination, the findings of fact, conclusions of law, and decision. The decision of the majority of the commissioners shall be the decision of the commission. In case a commissioner dissents from the commission's decision, he may set forth his findings, conclusions, and reasons for his dissent. The decision may confirm the assessment as made, and sustain it; it may modify the assessment in various particulars; or it may ascertain that the assessment should not be confirmed in any respect. The findings and order of the commission shall be furnished to the taxpayer by registered mail.

22.30-1 Jeopardy assessments.

a. A jeopardy assessment made pursuant to Code section 422.30 is due and payable when the notice of the assessment is served upon the resident or nonresident taxpayer, and may not be paid in installments. Proceedings to enforce the payment of the assessment by seizure or sale of any property of the taxpayer, or by garnishment, may be instituted immediately.

b. A jeopardy assessment may be made in a case where a return has been filed, and the commission believes for any reason that collection of the tax will be jeopardized by delay; or in a case where a taxpayer fails to file a return, whether or not formally called upon to do so, in which case the commission is authorized to estimate the income of the taxpayer upon the basis of available information,

and to add thereto interest and penalties. The payment of tax under a jeopardy assessment does not deprive the taxpayer of the right to claim a refund of any part of the tax paid, to which he can prove himself entitled.

22.30-2 Waiver of period of limitation.

Where it appears that the collection of tax may be jeopardized by delay, an estimated tax, based on available information, will be assessed against the taxpayer, the assessment to be subject to such later adjustments as may be found necessary. If the taxpayer files with the commission a written waiver of the period of limitation, the limit of time for audit of the taxpayer's return will thereby be extended for a designated period. A waiver, when granted, carries limitation of thirty-six months interest to be assessed on the year waived. [Amended August 24, 1962]

22.32-1 Definitions.

a. The term "corporation" as used in chapter 422 of the Iowa Code and in these regulations includes not only corporations which have been created or organized under the laws of Iowa, but also those which are qualified to do, or are doing business in Iowa, in a corporate or organized capacity, by virtue of creation or organization under the laws of the United States or of some state, territory or district or of a foreign country. The term "corporation" is not limited to the artificial entity usually known as a corporation, but includes also an association, a trust classed as an association because of its nature or its activities, a joint stock company, and certain kinds of partnerships. Any association or organization which is required to report as a corporation, for federal income tax purposes under the Internal Revenue Code of 1954, shall be considered to be a corporation for the purposes of Iowa income tax on corporations. [Amended August 24, 1962]

b. The term "association" is not used in the law in any narrow or technical sense. It includes any organization, created for the transaction of designated affairs, or the attainment of some object, which like a corporation continues notwithstanding that its members or participants change, and the affairs of which, like corporate affairs, are conducted by a single individual, a committee, a board, or some other group, acting in a representative capacity. It is immaterial whether such organization is created by an agreement, a declaration of trust, a statute, or otherwise. It includes a voluntary association, a joint stock association or company, a "business" trust, a "Massachusetts" trust, a "common law" trust, a partnership association, and any other type of organization (by whatever name known) which is not, within the meaning of the law, a trust or an estate, or a partnership. An "Investment" trust of the type commonly known as a management trust is an association, and a trust of the type commonly known as a fixed investment trust is an association if there is

power under the trust agreement to vary the investment of the certificate holders. If the conduct of the affairs of a corporation continues after the expiration of its charter, or the termination of its existence, it becomes an association.

22.33(1)-1a Basis of corporate tax. The determination of taxable income of a corporation is accomplished on a different basis than in the case of other taxpayers. Individual residents of Iowa, and partnerships, estates, and trusts domiciled in Iowa are subject to the tax on all net income received by them, from sources within or without the state. In the case of corporations whose income is subject to the tax, the tax is levied and collected only upon such net income as may accrue to the corporation from business carried on in the state plus certain net income from sources without the state which by law follows the home office of the corporation. [Amended August 24, 1962]

22.33(1)-1b Corporations electing partnership-type taxation. The foregoing paragraph applies to shareholders of small corporations electing under sections 1371-1377 IRC to distribute the corporation's income to the shareholders. The corporation income in its entirety is then subject to individual reporting. The shareholders will report in their individual returns their share of the corporation's income computed without benefit of outstate-instate allocation. [Filed August 24, 1962]

22.33(1)-2 Corporations carrying on business entirely within the state of Iowa. If a corporation carries on its trade or business entirely within the state of Iowa, no allocation or apportionment of its income may be made. The corporation will be considered to be carrying on business entirely within the state of Iowa if its sales, or other activities are carried on only in Iowa, even though it may own subsidiary corporations which function in other states and from which it receives income in the form of interest, dividends, rents, royalties, or otherwise. [Amended August 24, 1962]

22.33(1)-3 Corporations not carrying on business entirely within the state of Iowa. All corporations not within rule 22.33(1)-2 shall be deemed not to carry on business entirely within the state of Iowa. The net income of such corporations shall be apportioned or allocated to Iowa and outside Iowa in accordance with rule 22.33(1)-4 through 22.33(1)-10, and rule 22.33(2)-1. For the purpose of these regulations the word "apportioned" shall mean assigned by a percentage ratio and the word "allocated" shall mean assigned specifically within and/or without the state. The word "domicile" if used in these regulations shall mean the home office of the corporation. [Amended August 24, 1962]

22.33(1)-4 Interest, dividends, rents and royalties (less related expenses) received in connection with business. All interest, divi-

dends, rents and royalties shall be allocated as directed by subsection (1)-"a" of Code section 422.33. [Amended August 24, 1962]

22.33(1)-5 Application of related expenses. Code sections 422.35, 422.33 (1) and rule 22.33 (1)-3, direct that the allocation and apportionment of income, by subsections "a" and "b", of section 422.33, as interpreted by rule 22.33 (1)-4 through 10, deal only with the separation of NET income. Therefore, determination and application of RELATED expenses must be made, as hereinafter directed, BEFORE allocation or apportionment within and/or without Iowa.

The word "RELATED" as used in line one of Code section 422.33 (1)-"a", shall mean those expenses which are directly related and also those indirectly related.

Indirect expenses to be determined and LIMITED as follows: Where a corporation has assets producing interest, dividends, rents and royalties, borrows money for any corporate purpose, the interest paid shall be deemed indirectly related to the production of interest, dividends, rents and royalties.

All rents paid, and royalties paid for the right to extract and/or process natural resources, shall be deemed expenses indirectly related to rent and royalty income from tangible property, even though not paid for the use of the property producing the income.

However: Indirect expense, as determined above, shall not exceed the amount of income (less other related expenses), to which it is deemed related. [Amended August 24, 1962]

22.33(1)-6 Allocation of net income from interest, dividends, rents and royalties. In the allocation provided by section 422.33 (1)-"a", the business to which these earnings are connected is the business activity of the assets producing the income. In general the part of the net income attributable to business within the state shall be in that proportion which the gross business activity within the state of the assets producing each type of income, bears to the total gross business activity of the assets producing each type of income; subject however to the following specific allocations:

a. NET rent income shall be allocated to Iowa in that proportion which the gross rent charged for the use of the asset while being used in Iowa, during the tax year, bears to the total gross rent charged for the use of the asset during the tax year.

b. NET royalty income, from the extraction and/or processing of natural resources, shall be allocated to Iowa in that proportion which the gross sales of the product within Iowa, during the tax year, bear to the total gross sales of the product, during the tax year.

c. NET royalties, not allocable as directed by paragraph "b" above, shall be allocated to Iowa; unless the taxpayer presents detailed schedule(s), establishing to the satisfaction of the commission, that the asset(s) was (were) used without Iowa.

d. NET interest on tax refunds shall be allocable to Iowa in that proportion which the tax refunded is a recovery of tax expendable against income subject to Iowa corporation income tax.

e. NET interest received by a corporation, during the tax year, because of indebtedness evidenced by notes, mortgages, contracts, accounts receivable and any other written or oral evidence of indebtedness, shall be allocated to Iowa; unless the taxpayer files detailed schedule(s), establishing to the satisfaction of the commission, that the money representing the indebtedness was used without Iowa.

f. NET dividend income, received by a corporation during the tax year, shall be allocated to Iowa in that proportion which, the taxable Iowa net income of the dividend paying corporation(s), for the tax year in which the dividend was paid, bear(s) to the total on the same Iowa basis. [Amended August 24, 1962]

22.33(1)-7 Net gains and losses from the sale of assets.

a. Gain or loss from sale of assets USED IN THE BUSINESS as determined by the United States Internal Revenue Code section 1231, as revised by Iowa Code section 422.35, shall be apportioned or allocated within and without the state as follows:

Corporations determining Iowa taxable income, by a ratio of sales, gross receipts or other business activity ratio, shall apportion gain or loss from sale or exchange of assets USED IN THE BUSINESS, as determined by said federal code section 1231, by the business activity ratio applicable to the year the gain or loss is determined.

Corporations having ONLY assignable income shall assign gain or loss from sale of assets USED IN THE BUSINESS as follows: Gain or loss from the sale of assets used in the business shall be assigned within Iowa, in that proportion which, the gross income from the assets sold, was assignable within Iowa, during the three tax years first prior to the year the assets were sold, bears to the comparable total assignable both within and without Iowa. If the assets had no gross earnings or if none of the earnings were subject to Iowa corporation income tax, during said three preceding tax years, the gain or loss from the sale of tangible and/or intangible personal property shall be assigned to the domicile of the recipient and gain or loss from realty shall be assigned to the location of the realty.

b. Gain or loss from the sale of CAPITAL assets as determined by the United States Internal Revenue Code as revised by Iowa Code section 422.35, exclusive of gains and losses determined by subsection "a" of this regulation, shall be apportioned or assigned within and without the state as follows:

Gains or losses from sale of TANGIBLE personal property shall be apportioned or assigned as directed by subsection "a" of this regulation.

Gain or loss from the sale of REALTY and

INTANGIBLE personal property, shall be assigned as directed by subsection "a", paragraph (3) of this regulation. [Amended August 24, 1962]

22.33(1-8) Where income is derived from business other than the manufacture or sale of tangible personal property.

a. This regulation applies to corporations receiving net income from business of types not covered by rules 22.33(1)-4, 22.33(1)-6, 22.33(1)-7, 22.33(1)-9 or 22.33(1)-10.

b. The term "income from personal and/or business service" includes income which is received by a corporation for rendering personal and/or business service, fees and commissions, including those derived from conducting an auction, agency, brokerage or commission business. It is immaterial whether the services are performed by the principal owner or stockholders or by other employees of the corporation.

Income received by a corporation from personal and/or business services is allocable to Iowa regardless of where the services were performed if the corporation is domiciled in Iowa, or has a business situs in Iowa.

Income received by a corporation doing business in Iowa from personal and/or business services performed in Iowa is allocable to Iowa, even though the corporation has no Iowa domicile or business situs.

c. Any other net income must be specifically allocated or equitably apportioned within and without Iowa on a basis which the taxpayer can substantiate, to the satisfaction of the commission, as just and equitable. [Amended August 24, 1962]

22.33(1)-9 Where income is derived from the manufacture or sale of tangible personal property.

a. The Act provides specifically but one method of apportioning net income derived from the manufacture or sale of tangible personal property, which provides that the part of such income attributable to business within the state shall be that proportion which the gross sales made within the state bear to the total gross sales.

Nonapportionable income assignable to Iowa shall be added to the apportionable income assigned to this state as determined by use of the apportionment fraction to determine the total net taxable income.

b. The gross sales of a corporation within the state includes sales for delivery to a purchaser within the state, but does not include sales for delivery to a common carrier for transportation out of the state.

For example, if a corporation sells to a customer at its place of business in this state, and delivers the property to the purchaser, the sale is a sale within the state and the income derived therefrom is taxable in this state, regardless of the ultimate destination of the property. If, however, a sale is made and the property is not delivered to the purchaser thereof, but to a common carrier for trans-

portation to a place outside of the state, the income derived therefrom will not be taxable in Iowa.

The gross sales of a corporation within the state shall be taken to be the gross sales of goods sold and delivered within the state, including:

1. Goods sold and delivered within the state to a common carrier and consigned to a point within the state, regardless of where such shipment may be afterwards consigned by the purchaser.

2. Goods sold and delivered within this state to a common carrier and consigned to a point without this state, but diverted by the purchaser and actually delivered to a point within the state.

Goods sold and delivered within the state to a common carrier for transportation out of the state and which are actually delivered outside of the state shall be excluded.

Goods delivered to the purchaser in Iowa from stocks of merchandise kept within the state shall be included as Iowa sales in determining the proportion of the net income subject to the tax even though such transactions were handled through an office outside the state.

c. In the case of corporations engaged in the manufacture or sale of tangible personal property, the apportionment fraction represents the ratio of the sales made within this state during the taxable year to the total sales wherever made. For explanation of what constitutes a sale within Iowa see subparagraph "b" hereof.

The right to apportion or allocate taxable income by corporations does not extend to resident individuals, partnerships, estates or trusts. In the case of income of a nonresident, such apportionment or allocation is permissible in certain cases, but under rules different from those applicable to corporation income. [Amended August 24, 1962]

22.33(1)-10 Allocation of income of public utility, transportation and communications corporations. Net income of these corporations, other than interest, dividends, rents and royalties, which is not specifically assigned by rules 22.33(1)-7, 22.33(1)-8 or 22.33(1)-9 shall be apportioned as follows:

1. *Railroads.* Where net income is derived from railroad operations, the part thereof attributable to business within the state shall be that proportion which the trackage owned and operated within the state, bears to the total trackage owned and operated, as reported to the interstate and Iowa state commerce commissions.

2. *Air line, truck and bus line companies, freight car and equipment companies* shall determine their Iowa proportion of gross receipts of gross revenues by taking the proportion of mileage traveled in Iowa to the total mileage traveled within and without the state. This provision is applicable to corporations only.

3. Oil, gasoline, and gas pipe line companies shall determine the proportion of transportation revenue derived from interstate business that is attributable to Iowa by the proportion of Iowa traffic units to total traffic units. The "Traffic Unit" of an oil pipe line is defined as the transportation of one barrel of oil for a distance of one mile; the "Traffic Unit" of a gasoline pipe line is defined to be the transportation of one gallon of gasoline for a distance of one mile; and a "Traffic Unit" of a gas pipe line is defined to be the transportation of one thousand cubic feet of natural or casinghead gas for a distance of one mile.

4. Telephone and telegraph companies shall determine the Iowa proportion of revenues by taking the Iowa proportion of used wire mileage to the entire used wire mileage of the system. [Amended August 24, 1962]

22.33(2)-1 Allocation of income in special cases. Whenever it shall appear to the commission that the statutory method of apportionment will not properly reflect the taxable net income assignable to the state, the commission may permit or require a taxpayer to determine the taxable net income by other methods. If a taxpayer feels that the allocation and apportionment as prescribed by subsection 1 of Iowa Code section 422.33, in his case, results in an injustice, such taxpayer may petition the commission to be permitted to determine the taxable net income, allocable and/or apportionable to the state on some other basis. Such petition must be in writing, and shall set forth in detail the facts upon which the petition is based. The burden of proof will be on the taxpayer as to the validity of the method and its results.

The taxpayer must first file his return as prescribed by subsection 1, of section 422.33. If a change to some other method is desired a statement of objections and an alternative method shall be filed. The commission shall require detail and proof within such time as they may reasonably prescribe. If the commission shall conclude that the statutory method is in fact inapplicable and inequitable, the commission shall prescribe a special method. Since a prescribed method, is the discretion of the commission and without knowledge of what the discretion of future commissions will be, it is not possible to grant or deny its use beyond the years under audit at the time the special method is prescribed. The taxpayer's continued use of a prescribed method will be subject to change within the statutory, or legally extended period for audit. [Amended August 24, 1962]

22.33(2)-2 Separate accounting methods. The use of the separate accounting method may be authorized by the commission where it is shown to the satisfaction of the commission that this method will more clearly and equitably reflect the income assignable to this state. Ordinarily the separate accounting method is not satisfactory for a manufactur-

ing business. It may be permitted to be used for merchandising businesses where separate records are kept of sales, costs of sales, and expenses for Iowa business, as in the case of a corporation branch carrying on business entirely within Iowa. Overhead items of income and expense must be allocated to the business within and without Iowa on a basis which utilizes the factors by which such items are measured. For example, federal income taxes are based upon income, and their allocation must be based upon the ratio of taxable income within this state to the total income for the year in which the taxes are assessed, despite the fact that such ratio may differ from the ratio of the year in which the taxes are paid.

General overhead items, such as officers' salaries, rent, etc., should be allocated to business within and without the state upon a basis which the taxpayer can substantiate as being equitable and just. Improper allocation of such general overhead expense by the taxpayer may necessitate the use of the statutory method of assigning income to Iowa. Expenses connected with interest, dividends and rentals realized from investments must be applied against the investment income. The balance of such income is allocated specifically according to the domicile of the recipient or place of integration of property from which income is received. Where a selling organization within Iowa disposes of the company's entire product manufactured in Iowa to the exclusion of any other products manufactured elsewhere, the commission may permit the use of the separate accounting method, provided that the sales are not made to other branches of the selling corporation, or to an affiliated corporation.

22.34-1 Exemption of farmers and fruit growers associations and like organizations. The exemption under paragraph 6 of Code section 422.34 will be denied if the association markets the products of nonmembers, provided the value of such products marketed for nonmembers exceeds five percent of the value of the products marketed for members and nonmembers.

Mutual farm telephone companies or rural electrification associations which operate by assessing members or stockholders for merely the amounts necessary for the payment of operating expenses will be exempted when application with proper showing is made to the commission.

22.34-2 Application for exemption. Corporations and organizations claiming exemption from taxation under the foregoing provisions shall be required to provide good and sufficient evidence to the commission showing their right to exemption as claimed. The burden is upon the corporation claiming exemption to establish same without request by the commission. In no event shall corporations be exempt from providing information at the

source as to compensation or other items of value paid by them to employees and others, as required by Code section 422.15, and related provisions.

22.34-3 Form of application for exemption.

An application should be made in behalf of the corporation or association claiming exemption, by the president and secretary thereof, requesting such exemption under Code section 422.34 and must contain the following information:

1. The character of the organization.
2. The purpose for which it was organized.
3. The actual activities.
4. The sources of income and its disposition.
5. Whether or not any of the net income is credited to surplus or may inure to the benefit of any private individual or stockholder, and if so, in what manner and to what extent.

6. Whether or not exemption from filing federal income tax returns has been granted by the bureau of internal revenue. If not, state reason.

7. If exemption is claimed under paragraph 6 of section 422.34 the following data must be furnished:

a. State the value of products marketed during the year for members \$....., nonmembers \$.....

b. State the value of purchases made during the year for members \$....., nonmembers \$.....

c. State the value of purchases made during the year for persons who are neither members nor producers \$.....

d. If the organization deals with nonmember patrons state whether or not they are treated the same as members insofar as the charges made for service or the distribution of patronage dividends is concerned.

8. In general, all facts relating to the operation of the business which affect the right to exemption. There must be attached to the application:

a. A certified copy of the articles of incorporation.

b. A certified copy of the bylaws.

c. A copy of the latest financial statement, showing assets, liabilities, receipts, and disbursements of the organization.

The statements supporting the claim for exemption must be sworn to.

22.35-1 Adjustments to "net income" of corporations. Adjustments to "net income" under Division III of chapter 422 shall be made similar to those required to be made to "net income" under Division II of chapter 422 by rules 22.7-2, 22.7-3, 22.7-4, 22.7-11, 22.7-12, 22.7-13, 22.9-4 and 22.9-10. Rule 22.22 is also applicable to corporation returns. [Amended August 24, 1962]

22.35-2 Allocation of net operating loss and federal income taxes. Corporations subject to the allocation provisions of Code section 422.33, and to rules 22.33(1)-1 through 22.33(1)-9,

22.33(2)-1 are permitted to deduct only such portion of deduction for net operating loss and for federal income taxes as is fairly and equitably allocable to Iowa. [Amended August 24, 1962]

22.36-1 Returns by corporations. Every corporation upon which the tax is imposed must file a true and accurate return of its income or loss for the taxable period, if incorporated in or licensed in Iowa. Such return shall be sworn to by the president, vice-president, or other principal officer, and by the treasurer or assistant treasurer. If the corporation was inactive during the taxable period, the return must contain a statement to that effect. A corporation existing during any portion of the taxable year is required to make a return, regardless of the amount of its income or loss.

22.36-2 Income tax of corporations in liquidation. When a corporation is in process of liquidation, or in the hands of a receiver, the income tax returns must be made upon oath or affirmation of the persons responsible for the conduct of the affairs of such corporation, and must be filed at the same time and in the same manner as required of other corporations.

22.36-3 Distributions in liquidation. Amounts distributed to stockholders in complete liquidation of a corporation are to be treated as in full or part payment in exchange for the shares held by the stockholders. Such a transaction constitutes the sale or exchange of a capital asset.

22.36-4 Income tax returns for corporations dissolved. Corporations which have been dissolved during the income year must file income tax returns for the period prior to dissolution which has not already been covered by previous returns. Officers and directors are liable for filing of corporation income tax returns and for the payment of taxes, if any, for five years after date of dissolution.

Where a corporation dissolves and disposes of its assets without making provision for the payment of its accrued Iowa income tax, liability for the tax follows the assets so distributed and upon failure to secure the unpaid amount, suit to collect the tax may be instituted against the stockholders and other persons receiving the property, to the extent of the property received, except bona fide purchasers for a valuable consideration.

22.36-5 Penalty for failure to file a corporation return. If a corporation required by the Act to file any report or return (including returns of information at source) or to pay any tax or fee, fails to do so within ninety days after the time prescribed for making such returns or payment, the commission may certify such fact to the secretary of state, who shall thereupon cancel the articles of incorporation or certificate of authority (as the case may be) of such corporation, and the rights to such corporation to carry on business in the state

of Iowa as a corporation shall thereupon cease. Any person or persons who shall exercise or attempt to exercise any powers, privileges, or franchises under articles of incorporation or certificate of authority after the same are canceled, as provided in the Act, shall pay a penalty of not less than one hundred dollars, nor more than one thousand dollars, to be recovered in an action brought by the commission.

22.36-6 Returns of information as to dividends paid. Every domestic corporation and every foreign corporation doing business in Iowa (whether or not exempt from payment of income tax) shall file returns of information as required by section 422.15, and shall also make complete return under oath of all dividends paid in amounts of one hundred dollars or over during the calendar year to Iowa resident stockholders, or to a nonresident business, carried on in this state. The credit on tax provided by section 422.11 will not be allowed in any case where the corporation fails to so report the amount of dividends paid.

22.36-7 Additional information required from foreign corporations. Foreign corporations are required to file a copy of their federal income tax return for the current tax year with the return required by Code section 422.36. However, if the form provided for filing corporate returns, by the state tax commission, contains space upon which the information on the federal tax return may be copied, the taxpayer may insert that information on the form provided by the state and will not be required to file a copy of the federal income tax return in addition.

22.37-1 Consolidated returns. Authority to grant or withhold permission to file a consolidated return in the case of affiliated corporations, as well as to require such returns, is by the Act vested in the commission. Ordinarily, the making of consolidated returns will not be permitted, but this inhibition shall not be construed as denying the right of any corporation to make application to the commission for the privilege of filing a consolidated return, setting forth in such application in detail the reasons therefor, together with statements showing the income and deductible expenses of each affiliate and a consolidated statement showing the combined income and deductible expenses of the affiliated concerns. A consolidated return will in no case be permitted by the commission where it appears that the total taxable income of the affiliates is thereby reduced. Each corporation is, under the law, a separate and distinct entity; and the ownership of all, or of substantially all, of the stock of one corporation by another corporation or by the stockholders of another corporation, does not operate to change this condition. The commission may, however, require the making of a consolidated return if thereby the taxable income of the corporations affected will be more clearly disclosed.

22.37-2 Evasion of tax by corporations.

Where a corporation which is liable to taxation fixes its income through purchases, sales, contracts, or other arrangements in such a manner as to benefit stockholders or affiliated interests, and thereby create an improper net income for the corporation, the commission may determine the income on such a basis as will give effect to the fair and reasonable profits which might have been realized but for such contract or arrangement. The section of the Act which gives authority to this regulation was enacted primarily for the purpose of preventing the diversion of profits from Iowa by means of stockholders or affiliated interests located outside of Iowa.

Some common forms of diversion of income are:

1. Sales at more or less than fair value.
2. Purchases at more or less than fair value.
3. Fixing profits in advance by contract.
4. Payment of unreasonable officers' salaries, rents, royalties, interest, and other charges against income.
5. Billing the product to an affiliate at factory cost. Such practices are made possible by forming separate corporations or sales agencies outside the state, and selling products to them at arbitrary prices, reducing the apparent income of the Iowa concern, this profit being realized by the foreign affiliate or sales agency, in a state where no state income tax applies. In such cases the commission may require that consolidated returns be made, or that statements be submitted showing the operations of the Iowa corporation and of the affiliated corporations or sales agencies. The income attributable to Iowa is then determined by apportionment by the statutory method, or by valuing the products sold by the Iowa corporation at a fair market value, and adjusting fictitious deductions on an equitable basis, in accordance with attendant facts and circumstances.

In recent years there has been a tendency on the part of corporations operating both within and without the state to form separate corporations for the purpose of carrying on the manufacturing and sales operations. If the manufacturing company operates in Iowa, it sells its products to the sales company outside of Iowa at prices which may or may not result in a proper profit to the manufacturing company. If the sales company operates within the state, it buys its products from the manufacturing company outside the state at prices which may or may not result in proper profit to the sales company. The intercompany prices may be based upon the market value of the product transferred, factory cost, factory cost plus a certain percent, or be purely arbitrary prices calculated to result in a certain profit which has been predetermined.

In determining whether the profit shown for Iowa is proper, due consideration must be given to both the operations within and without the state. Any arrangement by which

either the sales or manufacturing company is permitted to show all of the profit, or substantially all of it, will be subject to question.

Billing the product at factory cost attributes no profit to manufacturing activity and cannot be considered as reflecting a proper income. The percentages which may be used on the factory cost are capable of great variations, resulting in a lack of uniformity of income. In the great majority of cases, the total profit realized from combined manufacturing and selling activities is of such a nature that it cannot be assigned to the several activities for purposes of the income tax except by apportionment in accordance with section 422.33.

The taxable income of a corporation operating in Iowa cannot be fixed by contract with its stockholders or other affiliated interests. If contracts between affiliated interests were permitted to establish income, any portion or all of the income earned in Iowa might be removed from the state. For purposes of determining taxable income, contracts between affiliated corporation or other interests may be disregarded on the theory that such contracts are in fact made by one and the same interest and not between persons dealing at arm's length.

The commission is empowered to require consolidated returns where it appears that the income of the corporation operating in Iowa is so intermingled with the income of one or more affiliated corporations as to make separate accounting of the Iowa income impossible. The consolidated income is then apportioned to Iowa, with due regard to the business both within and without the state, in accordance with section 422.33.

22.38-1 All the provisions of rules 22.15(1)-1 through 22.22, inclusive, insofar as the same are applicable, shall apply to corporations taxable under Division III, chapter 422, of the Iowa Code. [Amended August 24, 1962]

22.39-1 All the provisions of rules 22.25-1 through 22.25-8, inclusive, respecting payment and collection, shall apply in respect to the tax due and payable by a corporation taxable under Division III, chapter 422, of the Iowa Code.

22.41-1 All the provisions of rules 22.28-1 through 22.28-7, inclusive, and the provisions of rules 22.30-1 and 22.30-2, shall be applicable to corporations taxable under Division III, chapter 422, of the Iowa Code. [Amended August 24, 1962]

22.61-1 Federal rulings and regulations. In determining whether "taxable income", "adjusted gross income", "net operating loss deduction" or any other deduction, or "dependents" are as computed for federal tax purposes under, or have the same meaning as provided by, the Internal Revenue Code of 1954, the commission will use any applicable rulings and regulations that have been duly promulgated by the commissioner of internal

revenue, unless it finds that an otherwise applicable ruling or regulation is illegal or unauthorized.

22.63-1 Examination of federal returns of taxpayers. Under federal law, federal income tax returns are public records, but open for inspection only by specified personnel. Proper taxing officials of a state, upon request by its governor, are permitted to inspect such returns including audits thereof made by the internal revenue service. Iowa authorizes the commission to make such an examination, by the provision of Code section 422.63(1) which provides that the commission shall have power "to examine or cause to be examined by any agent or representative designated by it, books, papers, records, or memoranda." Certain agents and representatives of the commission are designated, and have been granted permission by the commissioner of internal revenue, to inspect federal returns and allied records filed with or obtained by the internal revenue service. Those agents and representatives of the commission who are designated by the director, income tax division, are authorized to examine any other books, papers, records, or memoranda. The commission has power to require that such books, papers, records or memoranda be produced, by procedure involving penalties for failure to comply.

22.63-2 Bank records. The commission has power to require the taxpayer to produce his canceled checks, check stubs, and bank statements. Where the taxpayer has lost or destroyed such records, the commission may examine any photostatic or carbon copies thereof in the possession of the bank with which taxpayer's account was maintained.

22.66-1 Refund of overpaid tax. The income tax law imposes upon the commission the obligation of refunding to taxpayers all income tax in excess of amounts legally due, paid by the taxpayers. When the taxpayer believes that he has overpaid his tax, he should file with the state income tax division a claim for refund of the amount overpaid.

A claim for refund shall be made on form IT-6 and shall be sworn to before a notary public or other person authorized to take acknowledgments. Upon a claim for refund, the commission may redetermine the entire tax liability of the taxpayer, and even though no new assessments can be made on account of the expiration of the period of limitation, the taxpayer is nevertheless not entitled to a refund unless he has overpaid his tax. Claims for refunds must be filed in duplicate.

There shall be set out in the claim (a) the taxpayer's name, address and occupation or business; (b) the taxable year or years involved; (c) the amount of tax assessed or paid, with date of payment; (d) the identification number stamped on check (if payment is by check); (e) the amount of refund requested; and (f) a complete statement of the facts on the basis of which the taxpayer believes that a refund should be made. Where the claim in-

volves taxes paid in different years, a statement for each year should be made.

If a refund is claimed by a fiduciary or other legal representative of a deceased person, for refund of tax theretofore paid by the decedent, (or by another fiduciary), suitable documentary evidence, validating the authority of the one by whom the claim is filed, must be attached to the claim. However, if a fiduciary files a return and thereafter a claim is filed by the same fiduciary for a refund of tax paid on such return, such documentary evidence need not be supplied, provided a statement is made in the claim to the effect that the return on the basis of which the refund is claimed was filed by the same fiduciary, who is still acting; but such evidence may later be required by the commission.

Where a claim is filed by an agent of the taxpayer, a power of attorney must accompany the claim.

Claims for refund are not required where the amount withheld by a withholding agent is found to be in excess of the tax liability.

[Filed September 27, 1955]

DIVISION IV RETAIL SALES TAX

PART I SALES TAX REGULATIONS

All rules are applicable to the administration of the use tax law unless otherwise indicated.

1. Information and opinions. A taxpayer who desires either information or an opinion as to the application of retail sales or use tax, shall make a request in writing addressed to the Division of Retail Sales and Use Tax, State Tax Commission, Des Moines 19, Iowa.

The request shall state all pertinent facts in respect to the transaction necessary to understand the case and shall be accompanied by a copy or an abstract of contracts or other documents, if any.

It is not the policy of the commission to give opinions based on hypothetical questions. The employees of the commission are prohibited from giving opinions or answers to hypothetical questions.

When a formal ruling is desired, the procedure prescribed in rule No. 5 shall be followed.

1.1 Correspondence.

When writing

(a) Mention the retail sales tax permit number which appears above taxpayer's name on the sales tax permit.

(b) Refer to the name under which the retail sales tax permit was issued.

If taxpayer's name is John Doe and he owns the South Side Grocery with retail sales tax permit No. 00-0000, when he writes for information, he should sign his letter with the BUSINESS NAME as well as his own:

Example:

South Side Grocery
By John Doe
00-0000

1.2 Administration. The administration of the retail sales and use tax law is delegated to the state tax commission. The law does not provide for any organization, except for the commission itself; therefore, the organization of the various divisions are creations of the commission and may be changed from time to time as the commission deems necessary.

The division of retail sales and use tax is one of the subdivisions created by the commission. This division is charged with the administration of the retail sales and use tax, subject always to the rules, regulations and direction of the commission.

Section 422.59

Section 422.61

1.3 Service of notice. Notices required by law to be served by the commission may be served by personal service. All except notices of appeal may be served by mailing the notice to the person for whom it is intended by registered mail, addressed to such person at the address given in the last return filed by him or if no return has been filed to such address as may be obtainable. The time required by law commences to run from the date of the registration and posting of the notice. For the convenience of this division practically all notices authorized to be served by registered mail are so served.

Section 422.57

1.4 Statute of limitations. The law specifically exempts the enforcement of both retail sales and use tax from the general provisions of the statute of limitations. Therefore there are no limitations on any proceeding or action to appraise, assess, determine or enforce the collection of either the retail sales or use tax. However, there is a limitation on the examination of the books, papers or records of the taxpayer, as the law provides that no examination of the records of a taxpayer shall include any transaction completed five or more years prior to the examination. For the purpose of this limitation the examination is considered to have been made on the date that the employee starts making an audit of the books, records or papers of the taxpayer. There is, therefore, no prohibition against the assessment, collection or the enforcement of tax from any taxpayer after the lapse of five years where the knowledge that tax is due and has not been paid is obtained by any method other than the examination of the books, papers or records of the taxpayer.

Section 422.57

Section 422.63

1.5 General regulations.

1. Auditors, inspectors and other employees of the commission, have official credentials. The taxpayer should demand proof of the identity of persons claiming to represent the commission. No charge is made for assistance given in or out of the office of the commission. No gratuities of any kind shall be accepted by any employee of this commission.

2. Taxpayers shall mail ALL REMITTANCES to the STATE TAX COMMISSION, Division of Retail Sales and Use Tax. Checks, money orders and drafts shall be payable to the "TREASURER" of the State of Iowa.

3. All employees authorized to collect money are supplied with official receipt forms. When cash is paid to any employee, the taxpayer should demand an official receipt. Such receipt shall show: The taxpayer's address, permit number, the purpose for which payment is made and the amount of the payment. The taxpayer shall retain all receipts. Any other than official receipts for payment will not be recognized by this division.

4. The original portion of the return blank is the only form which will be accepted as a return. The duplicate should be retained by the taxpayer for his file record. Notify this division immediately when business is discontinued. If the business is sold, notify this division giving the name of the successor.

5. A FINAL RETURN must be submitted within thirty days after terminating business. [Amended August 5, 1958]

6. No remittance should be mailed to the commission unless it is accompanied by a return. The name of the sender and the tax for which the remittance is sent in payment should be stated, together with the permit number and address of the sender. The commission administers many taxes. No tax can be properly credited unless the above information is given.

7. No department of this division is permitted to waive the requirements of the law. Employees are bound by the law and cannot follow personal inclinations.

8. Every return must be signed and dated.

9. Careful preparation of returns will assist both the taxpayer and the commission.

10. IT IS UNLAWFUL TO DO RETAIL BUSINESS, EVEN FOR A SHORT TIME, WITHOUT A RETAIL SALES TAX PERMIT.

1.6 Power and extent of the authority of the commission to make rules and regulations. The power and authority of the commission to prescribe and promulgate rules and regulations for the sales and use taxes are granted under the express authority of Code section 422.61.

2 Retailers required to keep record. The law provides that every taxpayer shall keep and preserve such records as the commission may require to determine the amount of tax for which he is liable.

By virtue of the provisions of the law, the commission requires that each taxpayer shall keep such records as to show:

1. A daily record of all cash and time payments and credit sales.

2. A record of the amount of all merchandise purchased, including all bills of lading, invoices, and copies of purchase orders arranged serially as to dates thereof.

3. All deductions and exemptions allowed by law or claimed in filing sales or use tax returns.

4. True and complete inventories of the value of the stock on hand taken at least once each year. This includes inventories of merchandise accepted as part payment of the selling price of new merchandise.

Such records shall be preserved for a period of five years and shall be open for examination at any time by the commission or its duly authorized agents.

If an assessment has been made and an appeal to the commission or to a court is pending, books and records as above specified relating to the period covered by such proposed assessment must be preserved until the final disposition of the appeal.

Failure to keep adequate records and to preserve the same as hereby required, shall be grounds for revocation of the retailer's retail sales tax permit.

Section 422.50

3 Audit of records. The law confers upon the commission the right and the duty to examine or cause to be examined the books, papers, records and memoranda of a taxpayer for the purposes of verifying the correctness of returns filed or to estimate the tax liability of any person. The right to examine records includes the right to examine copies of the taxpayer's state and federal income tax returns. When a taxpayer fails or refuses to produce the records for examination when requested by the commission or its employees, the commission has authority to require, by a subpoena the attendance of the taxpayer and any other witness whom the commission deems necessary or expedient to examine and to compel the taxpayer and witness to produce books, papers, memoranda and documents relating in any manner to retail sales and use tax.

The sales and use tax division now has the legal obligation to inform a taxpayer when an examination of the books and records of any taxpayer has been completed for sales and use tax purposes. This requirement will be carried out in letter form by designated personnel in the Des Moines office rather than through comments on the part of field auditor who transcribed the audit data from the records of the taxpayer. The commission then has a further legal obligation to give the taxpayer notice of the tax and interest penalty due within the maximum period of one year after the taxpayer was informed of the audit conclusion date.

This rule is intended to implement section 422.54 (1) of the Code. [Amended November 30, 1964]

Section 422.63

3.1 Assessments. All accounts receivable are debited against the taxpayer by means of an assessment. A retail sales tax return or a use tax return filed by a taxpayer constitutes a self-assessment. Where such return is made to the commission not accompanied by payment of the tax due or if the tax paid is insufficient an official assessment shall be made

against the taxpayer for the amount shown to be due by the return.

Where a debit against taxpayer shall have been determined by the commission as a result of a field audit or from any information received by the commission from any source other than a return filed by the taxpayer, the commission shall serve notice, by registered mail, on the taxpayer as required by Code section 422.57 requiring the taxpayer to file a corrected or sufficient return within twenty days after the date of such notice. If such a return is not filed by the taxpayer, the commission shall determine the amount of tax due as provided for in Code section 422.54 and the division of retail sales and use tax shall issue a formal assessment and file a lien against the delinquent taxpayer as provided by law and rule number 13.

If the taxpayer is not satisfied with the determination of the amount of tax due and desires to object to the assessment, he shall, within thirty days after the mailing of the notice of assessment by registered mail, request a hearing before the commission as provided for in rule number 5. After such hearing, the commission shall give notice of its redetermination to the person liable for the tax. Such redetermination shall be final unless the taxpayer appeals to the district court as provided for in Code section 422.55 and rule number 6.

Section 422.54

3.2 Collections. When an assessment shall have been made, the commission shall proceed with collection of such assessment. If the taxpayer refuses or neglects to pay the amount found due as evidenced by the assessment, the commission shall proceed to enforce collection by means of distress and sale, proceeding substantially in compliance with Code section 445.6. For the purpose of enforcing the collection of taxes or penalty or both the words "The Treasurer" shall be construed as "The State Tax Commission" wherever the same may be found in said section.

In the event the commission determines it expedient or advisable, it may by law or in equity, enforce taxes or penalties or both which it has determined to be due. In such action the attorney general shall appear for the commission and shall have the assistance of the county attorney in the county in which the action is pending.

The remedies for the enforcement and collection of retail sales and use tax are cumulative and no action taken by the commission or the attorney general shall be construed to be an election on the part of the state or any of its officers to pursue any remedy to the exclusion of any other remedy provided by law.

Section 422.26, Section 445.6, Section 626.29, Section 626.30, Section 626.31.

3.3 No property exempt from distress and sale. Code section 422.56, by reference, makes Code section 422.26 a part of the retail sales and use tax law and provides that said section

shall apply in respect to retail sales and use taxes or penalties determined to be due by the commission. The commission shall proceed to collect tax or penalty or both, after the same shall have become delinquent, BUT NO PROPERTY OF THE TAXPAYER SHALL BE EXEMPT FROM THE PAYMENT OF SAID TAX.

Section 422.56, Section 422.26

4 Information is confidential. All information obtained by auditors, inspectors, officials and employees in the performance of their official duties is strictly confidential. Information so received cannot be disclosed except as provided by law. The only information which an auditor, inspector or employee may give to any person not an employee of this commission, is to inform such persons whether or not a taxpayer has a retail sales tax permit and the number thereof. This exception is due to the fact that the law requires that the permit of the taxpayer shall be conspicuously posted in the taxpayer's place of business at all times.

Any person from whom the taxpayer is seeking credit, or with whom the taxpayer is negotiating a sale of personal property, may request information as to the amount of unpaid retail sales or use tax, or both, due from the taxpayer which would create a lien on the personal property of the taxpayer. Upon being satisfied that a person making the request has a legitimate interest, such information will be furnished by the division.

Section 422.65, Section 422.56

5 Hearings. The law makes it the duty of the commission to review any assessment to which the taxpayer objects and to review any matter within its jurisdiction to investigate or determine when requested to do so by a taxpayer or upon its own motion.

Any taxpayer may be heard by the commission upon making application in writing directed to the Chairman, State Tax Commission, Des Moines 19, Iowa, for the following reasons:

1. When an assessment against a taxpayer has been issued out of any division of the commission and the taxpayer wishes to contest the validity or amount thereof. Applications to be heard on assessments must be made within thirty days after the notice thereof. (See Code section 422.54.)

2. When an opinion has been rendered or a decision made by a department or employee of the commission adverse to the interest of a taxpayer.

3. When any taxpayer, or any association or organization representing taxpayers, advocates the adoption, modification or rescission of any rule within the power of the commission to make.

4. When any taxpayer has any grievance cognizable by the commission.

Section 422.63

6 Appeals. It is a condition precedent to the right to appeal to the district court from the

determination or order of the commission: That the taxpayer shall have requested a hearing within the time prescribed by law; that the matter shall have been presented to the commission and that the commission shall have made a determination or order adverse to the taxpayer.

Within sixty days after the taxpayer shall have received legal notice of the determination or order of the commission, he may appeal to the district court of the county in which he resides or in which his permanent place of business is located. An appeal is perfected by written notice thereof to the chairman of the commission served as an original notice. Appeals are triable in equity and all matters presented to the court are determined anew. The burden of proof shall be upon the taxpayer. The taxpayer or the commission may appeal from the decision of the district court to the supreme court of the state without regard to the amount involved. Appeals to the supreme court are taken in the same manner as appeals from equity actions.

Section 422.55

7 Administration of oaths. Each member of the commission and each employee thereof when authorized by the commission is empowered to administer oaths and take affirmations in all matters pertaining to their respective duties, with the exception of claims for refund and employee's expense accounts.

By virtue of the authority granted in Code section 421.21, the commission has authorized each field auditor, each office auditor, each field inspector, the head of each department and each office employee of this commission to administer oaths and take affirmations in any matter pertaining to the business of the division of retail sales and use tax except in respect to expense accounts and claims for refund.

This means that the above-mentioned employees may administer oaths to persons making affidavits or verifications, authorized or required by any department of the division of retail sales and use tax except as hereinbefore mentioned.

The name and official title of the employee administering an oath must be subscribed to the jurat. See rule No. 215.

Section 421.21

8 Public officers required to give information. The law provides that all public officers of the state shall give information to the tax commission with reference to any matter pertaining to taxes. The giving of information to the commission shall include the giving of any necessary information to the commission, officers, supervisors, inspectors and employees where such information is necessary in the performance of the duties pertaining to the administration of the retail sales and use tax laws or of any other revenue law administered by the commission.

Section 421.18

9 Definitions. The following words and phrases when used in these rules and regulations shall have the meaning ascribed to them in Code section 422.42; person, sales, retail sale, sale at retail, business, retailer, gross receipts, relief agency, commission; and the words motor vehicle and trailer shall have the meaning ascribed to them in Code section 423.1(7); and the word trailer when used here-in shall mean and include semitrailer as defined in the last mentioned section.

Section 422.42, Section 423.1(7) [Amended August 5, 1958]

10 Applies to sales tax only. Nature of retail sales tax. The retail sales tax consists of four parts which are as follows:

1. A tax of two percent on the gross receipts from all sales of tangible personal property consisting of goods, wares and merchandise sold at retail. [Filed August 10, 1962]

2. A service tax of two percent of the gross receipts from the sale of service or the furnishing of service of gas, electricity, water, heat and communication service which service tax includes the gross receipts from the sales of such service by all municipal corporations furnishing gas, electricity, water, heat or communication service to the public in its proprietary right.

3. A tax on tickets or admissions to places of amusement or athletic events at the rate of two percent of the gross receipts from the sale of such tickets or admissions.

4. An amusement tax effective on and after the first day of July, 1947, which is a tax of two percent upon the gross receipts derived from all forms of commercial amusement devices and commercial amusement enterprises, operated or conducted within the state. The amusement tax covers all receipts from the operation of musical devices, weighing machines, shooting galleries, billiard and pool tables, pin ball machines, coin-operated devices selling merchandise not subject to the general sales tax, and the gross receipts from devices or systems or where prizes are in any manner awarded to patrons and on the gross receipts charged for the participation in any game or amusement; and in addition thereto upon the gross receipts from any amusement operated for profit not specified in subsection two or three of section 422.43 and upon the gross receipts upon any other amusement from which no tax is collected for tickets or admissions. Notwithstanding the fact that the state taxes all forms of amusement, the tax is imposed on the gross receipts from the amusement and nothing in the law legalizes any game of skill or chance or coin-operated devices prohibited by law. The tax is on the gross receipts, not on the operation of the devices. [Amended August 5, 1958]

The tax is not imposed upon the articles sold, but is in the nature of a tax on the gross receipts from the total transactions, each of which is called the "sale". The term "sale" includes the exchange of property and any in-

stallment, credit, conditional or consignment sale and includes any other kind of a sale or transfer for any consideration. Blanket orders for future delivery, "will-call" orders and offer orders or agreements to sell in the future do not become taxable sales unless and until completed by the transfer of title or possession of the property.

The tax is imposed upon the seller. The seller also has a duty to reimburse himself by adding the tax or the average equivalent thereof to the sale price. The seller is liable for the tax, whether or not he complies with the law and passes said tax on to the consumer.

Returns and payments are made quarterly, the tax is due on the first day of the month following the end of each quarter and is delinquent after the last day of the same month. [Amended August 5, 1958]

Returns shall be mailed to the State Tax Commission, Division of Retail Sales and Use Tax, Des Moines 19, Iowa, together with a remittance payable to the Treasurer of the State of Iowa.

Forms for reporting the tax are mailed to retailers by the commission. Only the addressographed forms furnished by the commission shall be used in making a return.

IT IS UNLAWFUL TO DO RETAIL BUSINESS, EVEN FOR A SHORT TIME, WITHOUT A RETAIL SALES TAX PERMIT.

Section 422.43

10.1 Used or second-hand tangible personal property. The sale of used or second-hand tangible personal property in the form of goods, wares or merchandise is taxable in the same manner as new property. This condition eliminates any consideration for second-hand merchandise to be treated differently for sales tax purposes than new merchandise when sold at retail. [Filed August 10, 1962] [253 Iowa 994]

(See Trade-in Rule No. 40)*

10.2 Tangible personal property purchased from the U. S. Government. Tangible personal property purchased from the government of the United States or any of the government agencies is exempt from the provisions of the retail sales tax law, but such purchases are taxable to the purchaser under the provisions of the use tax law. Persons making purchases from the United States government unless exempt from the provisions of section 422.44 shall report and pay use tax measured by two percent of the purchase price of such purchases. [Amended August 10, 1962]

Section 422.44

10.3 Tangible personal property used or consumed by the manufacturer thereof. Where a manufacturer uses or consumes tangible personal property which has been manufactured, compounded, fabricated or assembled by the manufacturer, sales or use tax is imposed

depending upon the facts. The measure of tax is two percent of the fabrication or production cost. [Filed August 10, 1962]

Section 422.42 (10, 11)

11 Applies to sales tax only. Returns—instructions—payment of tax. Time and place for filing.

Sales tax is due the first day of the month following the close of the quarterly period. Returns are delinquent after the last day of the month immediately following the close of each quarterly period. [Amended August 5, 1958]

The return, together with payment of the full amount of tax due, shall be mailed to the Division of Retail Sales and Use Tax, State Tax Commission, State Office Building, Des Moines 19, Iowa, in the addressed envelope enclosed with the blank return. Always use that envelope.

All checks, drafts or money orders, for payment of the tax shall be made payable to the TREASURER OF THE STATE OF IOWA.

No cash should be sent through the mail. If money or stamps are enclosed such payment is received only at taxpayer's risk.

BASIS OF TAX

The tax is computed on gross receipts from all sales of tangible personal property, the furnishing or service of gas, electricity, water, communication service and the sale of tickets or admission to places of amusement and athletic events, less allowable deductions.

GROSS RECEIPTS means the total amount of the sales, valued in money, whether received in money or otherwise, provided, however, that when sales are made by conditional sales contract, or any other manner of sale which provides that payment of the principal sum shall be extended over a period longer than sixty days from date of sale, for the purpose of computing tax, only such portion of the sale amount that has actually been paid during the quarterly period covered by the return need be included in gross receipts.

RATE OF TAX

The tax shall be computed at the rate of two percent of the gross receipts less allowable deductions.

EXEMPTIONS—See Rules 29, 29.1 and 29.2.

Gross receipts from sales as follows are exempt from tax under the provisions of the law:

Sales in interstate commerce.

Sales made by or to the United States government.

Sales to the state of Iowa, counties, cities, school districts, etc., except for municipal gas, electric or heat plants, see Rule 11.1(d). Except, sales made by the state of Iowa are not exempt. [Amendment filed August 19, 1954]

Sales, furnishing or service of transportation service.

Sales of tickets or admissions to state, county, district and local fairs.

Gross receipts from sales made by (but not sales to) educational, religious or charitable

*Cross-references are not a part of the Rules as adopted [Ed.]

activities, where the entire net proceeds of such sales are expended for educational, religious or charitable purposes.

Sales of tangible personal property upon which the state of Iowa now imposes a special tax. See rule No. 29.2.

Sales of new motor vehicles and new trailers. See part IV of these rules.

Proper records must be maintained to prove all exemptions.

Section 422.51

11.1 Applies to sales tax only. Sales tax return and the preparation thereof.

Computation of Tax

Item 1. Total Gross Sales for period. Enter at that item the amount of total gross sales for the period covered by the return. The amount shall include all sales, both charge and cash sales, without deduction for services, sales for resale, returned goods, discounts, traded-in property, etc., provided however, that in the case of installment sales only such amount as has actually been received in cash during the quarterly period need be included in gross sales.

(a) Enter at that item: All tangible personal property which has been purchased tax free for resale, and subsequently consumed or used by the taxpayer either in the operation of the business, or for private or individual purposes, compute tax on the basis of cost of such property.

Item 2. Deductions. Enter at that item, under the proper classification, the deductions enumerated and explained in the return. All amounts deducted must have been previously included in ITEM 1 of the return.

(a) Sales of Services. Enter at that item sales of services which are not taxable under the law. Labor and services, when properly segregated in accordance with the rules and regulations, are not taxable.

(b) Sales for purpose of resale or processing. Enter at that item the total for the period of all sales made for the purpose of resale to authorized purchasers or for "processing" purposes as defined in the law and not for consumption or use by the buyer.

This rule is intended to implement section 422.42(3), Code of Iowa, 1962.

(c) Sales in Interstate Commerce. Enter at that item all sales made in interstate commerce as defined in these regulations.

(d) Sales, for public purposes, to United States government—state of Iowa—counties, cities, public school districts, public libraries, etc. Enter as this item all sales for the period made directly to the United States government, the state of Iowa and to counties, cities, public school districts, public libraries, county and municipal hospitals, etc., except that sales to any tax levying body used by or in connection with the operation of any municipally-owned utility engaged in selling gas, electricity or heat to the general public are not exempt from sales tax. This tax exemption also does not apply to construction jobs for

instrumentalities of federal, state, county or municipal governments. See Rule No. 49.

This rule is intended to implement section 422.42(10) and section 422.42(11), Code of Iowa, 1962. [Amendment filed August 19, 1954; November 30, 1964]

Section 422.46

(e) Sales of gasoline, diesel fuel and those sales of liquor which are subject to a special tax in excess of the sales tax rate.

This rule is intended to implement section 422.46, Code of Iowa, 1962. (See rule No. 29.2.) [Amended August 5, 1958; August 10, 1962; November 30, 1964]

(f) Sales of new motor vehicles and new trailers which are required to be registered in Iowa. Enter at that item all sales of new motor vehicles and new trailers which are required to be registered in Iowa and which are subject to the use tax before registration, payable to the county treasurer. All sales of new motor vehicles and new trailers must be included in ITEM 1 on PAGE 1 of the return.

(g) Traded-in tangible personal property. Detailed instructions are covered in our Rule No. 40. [Amended November 30, 1964]

(h) Returned goods. Enter at that item the total amount for the period where the full sale price is refunded either in cash or credit to the customer for goods returned. This deduction applies only to transactions where sales tax was previously reported and remitted by the seller.

This rule is intended to implement section 422.42(6), Code of Iowa, 1962. [Amended November 30, 1964]

(i) Discounts. Enter at that item the total amount for the period covering discounts allowed by the seller and taken by the customer, with sales tax only collected and due on the net charge. No credit can be allowed for any discounts given on sales not subject to sales tax.

This rule is intended to implement section 422.42(6), Code of Iowa, 1962. [Amended November 30, 1964]

(j) Bad Debts Charged Off. Enter at that item (if any) the amount represented by accounts which, during the period, are found to be worthless and are actually charged off as bad debts, provided, however, that such accounts are the result of charges covering taxable sales. [Amended August 5, 1958]

If such accounts charged off are later collected by the retailer, the amount of such recovery must be included in the subsequent gross sales of the return covering period in which recovery is made.

(k) Other Allowable Deductions. Use this space for entering the total of all allowable deductions for the period which are not expressly included in the classifications above.

Explain fully. Attach a separate sheet to the return, if necessary.

Item 3. Total Deductions. Enter at that item the total amount of the deductions itemized under ITEM 2 ("a" to "k" inclusive).

Item 4. Net Sales Upon Which Tax Is to Be Computed. Enter at that item the amount obtained by subtracting the amount entered as ITEM 3 from the amount entered as ITEM 1 (b).

Item 5. Amount of Tax. Enter at that item the amount of tax due. This amount shall be two percent of ITEM 4, provided, however, that where ITEM 4 includes two percent tax collected from the consumer, deductions may be made for such tax before computing the amount of tax due.

Section 422.52

11.2 Applies to sales tax only. Interest Penalty. Returns are due on the first day of month following close of each quarterly period, with the rate of interest penalty applying in the following manner for the filing of quarterly returns after July 4, 1963:

First month after the quarterly period no interest penalty.

Second month after the quarterly period five percent interest penalty.

Third month after the quarterly period five and one-half percent interest penalty.

Fourth month after the quarterly period six percent interest penalty.

(etc.)

Add one-half of one percent for each additional month or fraction thereof during which the tax is unpaid.

This rule is intended to implement section 422.54 and section 422.58, Code of Iowa, 1962, as amended by chapter 265, section 2, Acts of the 60th General Assembly.

12 Applies to use tax only. Nature of use tax. (See rule No. 170.)

13 Liens affecting the property of persons from whom either retail sales or use tax or both are due and owing. The law creates a lien in favor of the state of Iowa on all property and rights to property, whether real or personal, belonging to any person, firm or corporation liable to pay a tax or penalty or both imposed by law, who refuses or neglects to pay the same.

Section 422.26

14 A lien attaches to personal property without notice. Section 422.56 is made a part of chapter 423, by reference thereto in section 423.17, said chapter 423 being the codification of the use tax as amended.

Section 422.56

15 Retail sales tax permit required. No person shall engage in the business of selling tangible personal property at retail in Iowa until he shall have procured a retail sales tax permit. The fee for each permit is fifty cents. The fee shall accompany the application.

A sales tax permit shall be procured for each separate business location where retail sales are made. [Amendment filed August 19, 1954]

Doing business without a retail sales tax permit is a misdemeanor punishable by fine or imprisonment.

Co-operative associations, clubs, chambers

of commerce, rural electrification associations, lodges, churches and all similar organizations, must procure a retail sales tax permit and remit the tax if regularly engaged in selling, even though they may be nonprofit organizations. (See rule No. 123.)

Retail sales tax permits are issued on application to the division of retail sales and use tax.

Section 422.53

15.1 Application for permit. An application for a Permanent Retail Sales Tax Permit shall be made upon form ST-2 provided by the commission and shall furnish all information requested on the form.

If the business, for which an application for permit is made, is operated under a trade name, the application shall state the trade name as well as the individual owner's name, in the case of a sole ownership by an individual; or the trade name and the name of all partners, in the case of a partnership.

The application shall be signed by the owner in the case of an individual business; by all parties in the case of a partnership; by a properly authorized officer in the case of a corporation, or association.

The application shall state the date when the applicant began selling tangible personal property at retail in Iowa from the location for which the application for permit is made, as well as other information requested on the application blank.

Section 422.53

15.2 Permits not transferable—sale of business. Retail sales tax permits are not transferable. When a permittee sells his business, he shall have his permit canceled and the purchaser of the business shall make application for a new permit in his own name.

15.3 Permits—consolidated return optional. When a permittee has procured more than one retail sales tax permit, one consolidated retail sales tax return may be made reporting sales made at all locations for which he holds a permit, provided arrangements have been made with the retail sales and use tax division. A taxpayer may make a separate return for each permit held.

Form ST-51, revised, is required in all cases in which the taxpayer makes a consolidated return which includes the sales made at more than one location.

That form must be completely filled out and convey all information required in accordance with the column headings. No report shall be made except upon the regulation form ST-51, revised.

Enter in column 1, for each location, the total amount of gross sales as required in ITEM 1 of the return.

Enter in column 2, for each location, the total amount of net taxable sales after making allowable deductions as required in ITEM 4 of the return.

Enter in column 3, for each location, the amount of tax as required in ITEM 5 of the return.

All working papers used in the preparation of the information required in form ST-51, revised, must be kept available for examination by the commission or its duly authorized agents, as provided by law.

15.4 Retailers operating seasonal business. When a retailer makes sales on a seasonal basis, a regular tax permit is not necessary, but the commission's prescribed identification card, ST-174, must be completed and posted as authority to collect and remit sales tax. [Amended August 10, 1962]

Section 422.53 (7)

15.5 Regular permit holders responsible for sales tax collection. Where a regular permit holder sells merchandise by trucks, canvassers, or itinerant salesmen over fixed routes, or selling within the county in which the permanent place of business is located, or a contiguous county and the regular permit holder is liable for reporting and paying retail sales tax, then the seller shall be required to have on his person or in his vehicle, a form ST-157 authorizing such operation. Said form shall be imprinted with the permit number, name and address of the retailer, printed from the addressograph plate of the vendor. This regulation with reference to form ST-157 shall not apply to any permittee operating stands or concessions at fairs or carnivals. In case a permanent permittee operates a stand, concession or booth at a fair or carnival, such permittee shall account for sales tax on a non-permit basis. [Amendment filed August 19, 1954]

15.6 Reinstatement of canceled permit. When a person who has previously held a retail sales tax permit and has canceled said permit, wishes to re-engage in business in the same county, said person may make application for reinstatement of the permit by applying to the commission on form ST-2. Upon receipt of the fee of fifty cents, a new permit will be issued. Form ST-2 is furnished upon request to the commission or one of its field agents.

If a person who has previously held a permit and has canceled same wishes to re-engage in business in a different county, application must be made for a new permit on form ST-2 and a fee of fifty cents remitted with said application. The permits are issued for places and persons.

Where a taxpayer re-enters business in the same county in which he had previously been in business the permit number of the canceled permit shall be reassigned to him.

15.7 Reinstatement of revoked permit. When a sales tax permit has been revoked by the commission and the permittee thereafter makes application for reinstatement thereof for a new permit, the fee shall be one dollar.

A permit which has been revoked will be reinstated only on such terms and conditions as the case warrants. In no event will a revoked permit be reinstated unless and until the taxpayer assures the commission that the cause for which the permit was revoked will not be repeated.

Section 422.53

15.8 Change of location in same county. Where the ownership, tax liability and county have not changed, but where it becomes necessary to replace an active permit by reason of: (a) Loss or destruction of said permit, (b) change of address by permit holder within the same county or (c) change of coding and the like, form ST-33 "Request for Correction or Replacement of Retail Sales Tax Permit" is to be used without additional permit fee. [Amended August 10, 1962]

Section 422.53(4)

15.9 Change of location—not in the same county. When a permittee changes his business location to a different county, then the permit shall be submitted for cancellation with form ST-30 and an application for a new permit made for the new location. A fifty-cent fee is required for a new permit.

15.10 Applies to sales tax only. Tax procedure for itinerant merchants. Itinerant retailers who do not have a permanent or a fixed place of business in Iowa are required to report and remit sales tax on a nonpermit basis. Some of the merchants who operate in this category are carnivals, circuses, concession stands, and associated types of businesses.

For tax collection purposes, all itinerant merchants shall inform the state tax commission of their Iowa itinerary at least ten days in advance of their appearance in Iowa. [Filed August 19, 1954; amended August 5, 1958]

16 Applies to sales tax only. Retail sales tax permit must be posted. A retail sales tax permit, WITHOUT WHICH IT IS UNLAWFUL TO ENGAGE IN OR TRANSACT BUSINESS AS A RETAILER, must be conspicuously posted at all times in the taxpayer's place of business in such manner and in such position that it may readily be seen and read by the public. [Amended August 19, 1954]

Section 422.53

16.1 Applies to sales tax only. Notice to the public. Every person engaged in carrying on or transacting business of selling at retail within this state, shall post a NOTICE TO THE PUBLIC in the taxpayer's place of business, in such manner and in such position that it may be readily seen and read by the public. The following is the notice.

NOTICE TO PUBLIC

THE RETAIL SALES TAX LAW PROVIDES:

Sec. "422.49. It shall be unlawful for any retailer to advertise or hold out or state to the public or to any consumer, directly or indi-

rectly, that the tax or any part thereof imposed by this division will be assumed or absorbed by the retailer or that it will not be considered as an element in the price to the consumer, or if added, that it or any part thereof will be refunded."

This notice shall be conspicuously posted so that it may readily be seen and read by the purchasing public.

STATE TAX COMMISSION
Division of Retail Sales and Use Tax
Des Moines, Iowa

The notice shall be obtained from the state tax commission for each place of business in this state and must be posted.

17 Tax not to be included in price. Except when provided by this rule, when any retailer shall price mark any article for retail sale and display or advertise the same with such price mark to the public, the price so marked or advertised shall include only the retail sale price of such article.

Example: The advertised or marked price is \$1.00. When sale is made the purchaser pays or agrees to pay \$1.02, representing the purchase price plus tax, which, when added, becomes a part of the sale price or charge.

This rule does not prohibit advertising or displaying the sales price plus tax as in the following examples:

- "This dress \$10.00 plus tax," or
 - "This dress \$10.00 plus 20 cents tax."
- Section 422.48, Section 422.49

18 Retail bracket system. The retailer is required, insofar as practicable, to add the sales tax, or the average equivalent thereof, to the sale price and to collect the same from the consumer or user. Competing retailers and organizations or associations of retailers are authorized by statute to provide for uniform methods of passing such tax to the consumer with the co-operation of this commission.

In pursuance of the foregoing provisions, the Iowa Retail Dealers' Association, with the approval of this commission, has adopted the following bracket system for the application of the tax:

Sales Tax Schedule	
\$0.01-\$0.14—\$0.00	\$2.75-\$3.24—\$0.06
.15-.65— .01	3.25- 3.74— .07
.66- 1.24— .02	3.75- 4.24— .08
1.25- 1.74— .03	4.25- 4.74— .09
1.75- 2.24— .04	4.75- 5.24— .10
2.25- 2.74— .05	5.25- 5.74— .11

In purchases of larger amounts than \$5.74, the tax will be computed at straight two percent, one-half cent or more being treated as one cent.

The commission will co-operate with all retailers as far as practicable in applying the sales tax schedule, but in no event shall the same be administered in any manner that will result in the collection of substantially more

than two percent of the amount on which tax should be computed.

See rule No. 186.
Section 422.48.

19 Milk, cream and other dairy products.
[Rescinded as of July 1, 1958]

20 Computation of the tax on admissions.
The tax is imposed at the rate of two percent upon the gross receipts from admissions. When the charge for admission includes the federal tax, the amount thereof will be deductible from the gross receipts, provided the taxpayer maintains such records that the amount thereof is determinable.

Admissions to places of amusement may advertise their total admission price, but must use the statement, "Including State Sales Tax." On all sales of less than fifty cents, the fractional plan of collecting the sales tax shall be used, as in the following example:

State Sales Tax	\$.005
Admission	.245
	.25
Total	\$.25

When one of several theaters or places of public amusement is under one management, it will be necessary to post in each such place where readily readable by the public, a price card showing as to each price of admission, the fractional amount of admission, the fractional amount of the sales tax, and the total charge for admission. In all sales of fifty cents or more, the retail sales tax bracket may be applied.

When theaters or other places of public amusement operate stores or stands for the sales of tangible personal property, and sell the same at retail, they must collect and remit the tax on the gross receipts from such activities. No refund or credit can be allowed by reason of nonuse of any ticket of admission unless the charge for it is refunded the patron.

When a single ticket or charge covers admission to more than one attraction under the same management or ownership, the tax is computed on the basis of a single charge.
[Amended August 10, 1962]

Applies to sales tax only.

For tax on other amusements see rules 111.1 to 111.6 inclusive.

21 Applies to sales tax only. Sale of business. When any retailer sells his business, he shall make a return within the succeeding month thereafter, and pay all sales tax due. Any unpaid sales tax shall be due prior to the transfer of title of any personal property to the grantee and becomes delinquent one month after sale. A lien for taxes due attaches to the property to be sold and the purchaser of the business is personally liable for any sales tax unpaid by the former owner, to the extent of the value of the property purchased. The purchaser is required to withhold sufficient purchase money to cover any sales taxes or penalties due and unpaid, until the former

owner produces a release from the sales and use tax division showing that the taxes have been paid in full, or that there are no taxes due.

Each retailer discontinuing business shall maintain his records for a period of five years, unless a release from such provision shall be given by the commission. [Amended August 5, 1958; August 10, 1962]

Section 422.51 (2)

21.1 Bankruptcy, insolvency or assignment for benefit of creditors. Under the provision of law which permits the commission to require returns, other than for quarterly periods, if it deems it necessary or advisable in order to insure the payment of the tax, the commission holds that in cases of bankruptcy, insolvency or assignment for the benefit of creditors by the taxpayer that the tax shall be due and payable immediately and delinquent one month after such taxes become due and payable. [Amended August 10, 1962]

Section 422.51 (2)

22 Retail sales tax return to include total gross sales. The retail sales tax return filed by the taxpayer shall include the entire gross receipts from the sale of tangible personal property or taxable services during the period covered by the return and appropriate deductions taken on the return for the nontaxable or exempted receipts. See rule 11.1.

Section 422.42

22.1 Conditional sales to be included in gross sales. Where sales of tangible personal property are made at retail in Iowa subject to the sales tax under a conditional sales contract, the terms of which stipulate that the payment of the principal sum is extended over a period in excess of sixty days from the date of the sale, the seller may report the tax on that portion of the sales price actually collected and received during the quarterly period covered by the return, provided the seller maintains adequate records. If, however, sales are made on a conditional sales basis as above stated, but the seller assigns, negotiates or sells the finance paper, the seller is deemed to have received full consideration for the sale and will be liable for the remittance of the sales tax on the total sales price at the close of the quarterly period during which the paper has been assigned, negotiated or sold.

On conditional sales agreements where the payments of the principal sum extend longer than sixty days from the date of the sale, the seller may bill the purchaser for the full amount of the sales tax due computed on the entire contract price and remit the tax to this department at the close of the quarterly period during which the sale is made.

In other words, the seller may elect to report and remit on a collection basis, in which case the seller will only bill the purchaser for the tax due on the amount of payments collected, or the seller may bill the full amount of the tax due computed on the total sale on

the first down payment, under which circumstances the tax must be remitted by the seller to the commission at the close of the quarterly period when the sale is made.

Section 422.42

22.2 Service and handling charges. Where merchandise is sold at a fixed price and there is added thereto an additional fee or charge called, service or handling charges or any other name by which the same may be called, the commission holds that such fees and charges are part of the selling price of the article and retail sales tax shall be computed on the gross receipts from the sale of such property including service, handling and other like charges.

23 Repossessed goods. When tangible personal property which has been repossessed either by the original seller or by a finance company is resold to final users or consumers, the gross receipts from such sales are subject to the retail sales tax law.

When a retailer sells tangible personal property at retail in Iowa on credit terms and it becomes necessary for the retailer to repossess the tangible personal property sold, the retailer may take a deduction on his retail sales tax return filed for that quarterly period during which the repossession was made in an amount to cover the unpaid balance of the account of the purchaser, provided the retailer has previously included in his net taxable sales to the commission and remitted the sale tax thereon concerning the total receipts from the original sale of the repossessed property.

If the retailer has previously reported in his net taxable sales only the amount of payments actually received on the purchase price of the repossessed property, then no sales tax deduction shall be allowed to the retailer.

Where the retailer has collected sales tax on the full contract price from the purchaser on the first installation concerning a conditional sales contract and has remitted the full amount of tax to this department, the retailer will not be entitled to take a deduction for the goods returned, unless the tax is returned to the purchaser on the unpaid balance before repossession.

24 Certificates of resale or processing. The receipts from the sale of tangible personal property in Iowa for delivery in Iowa for the purpose of "resale" or "processing" by the purchaser are not subject to the sales tax.

The burden of proof is upon the seller to determine at the time of the sale whether the sale is made for the purpose of "resale" or "processing" by the purchaser and therefore exempt from the sales tax, or whether the property is purchased for purposes other than "resale" or "processing" and therefore subject to the tax.

Persons engaged in the business of selling tangible personal property at retail in Iowa are required to hold a retail sales tax permit. Such persons when purchasing tangible per-

sonal property for the purpose of resale should furnish to their supplier a certificate of resale indicating that the property is being purchased for resale and showing on their certificate their retail sales tax permit number, in order that their supplier may omit the billing of sales tax.

Persons engaged in selling tangible personal property in Iowa for delivery in Iowa but who are not making "sales at retail" are not required to hold a retail sales tax permit. Such persons when purchasing tangible personal property for resale should furnish to their supplier a certificate of resale stating that the property purchased was being purchased for the purpose of resale and advising that they do not hold a retail sales tax permit for the reason that they are not selling at retail in Iowa.

Persons engaged in educational, religious, or charitable activities, who sell tangible personal property at retail in Iowa in connection with such activities, are exempted from the payment of sales tax on their gross receipts derived from such sales by the provisions of section 422.45, provided the entire net proceeds therefrom are expended for educational, religious, or charitable purposes. Therefore, such persons are entitled to purchase tax free that property which they are to resell in connection with such activities by giving to their suppliers a proper certificate of resale, indicating that they are using the property for the exempted purpose as herein outlined, explaining that they do not hold a sales tax permit for the reason that their receipts from the sale of tangible personal property in connection with such activities are exempted from the sales tax.

Processors or fabricators who purchase tangible personal property which forms an integral or component part of the product which they are manufacturing and which is ultimately sold at retail are entitled to purchase such property tax free on the theory of "processing." Such purchasers should furnish to their suppliers a certificate of processing, stating that the property purchased by them will be used by them so as to form an integral or component part of other tangible personal property intended to be sold ultimately at retail; that they hold retail sales tax permit No., in event that they are selling at retail; or that they are not selling at retail in Iowa and therefore are not required to hold a retail sales tax permit.

Suggested forms of certificate of resale or processing, the substance of which should be employed in the certificate taken may be found in this rule.

Where the retailer repeatedly sells the same type of property to the same customer for "resale" or "processing" the seller may, at his risk, take a blanket certificate covering more than one transaction. For use tax certificate, see rule No. 187.

ST-1 CERTIFICATE OF RESALE

(By retailer)

The undersigned hereby certifies that the tangible personal property purchased from

Name and Address of Seller

is purchased for the purpose of resale by the undersigned; that the undersigned holds retail sales tax permit No. and will account to the state for any sales tax due as a result of a sale of this property at retail in Iowa by the undersigned.

.....
Address of Purchaser Signature of Purchaser

ST-2 CERTIFICATE OF RESALE

(By wholesaler)

The undersigned hereby certifies that the tangible personal property purchased from

Name and Address of Seller

is purchased for the purpose of resale; that the undersigned is solely engaged in selling tangible personal property at wholesale and does not sell to final consumers, and, therefore, does not hold a retail sales tax permit.

.....
Address of Purchaser Signature of Purchaser

ST-3 CERTIFICATE OF PROCESSING

(By processor selling at retail)

(Component part material)

The undersigned hereby certifies that the tangible personal property purchased from

Name and Address of Seller

is to be used in the fabricating, compounding, manufacturing or germination of other tangible personal property intended to be sold ultimately at retail, and that said property will form an integral part of the property sold; that the undersigned holds retail sales tax permit No.

.....
Address of Purchaser Signature of Purchaser

ST-4 CERTIFICATE OF PROCESSING

(By processor not selling to final consumer)

(Component part material)

The undersigned hereby certifies that the tangible personal property purchased from

Name and Address of Seller

is to be used in the fabricating, compounding, or germination of other tangible personal property intended to be sold ultimately at retail and that said property will not form an integral part of the property sold; that the undersigned is not engaged in selling tangible personal property at retail in Iowa and, therefore, does not hold a retail sales tax permit.

.....
Address of Purchaser Signature of Purchaser

ST-5 CERTIFICATE OF RESALE

(By persons engaged in religious-charitable-educational activities.)

The undersigned hereby certifies that the tangible personal property purchased from

Name and Address of Seller

for the purpose of resale by the undersigned; that the undersigned is engaged in religious-charitable-educational activities

Description and that said or Nature of Purchaser's Activities property is to be sold by the undersigned in connection with such activities; that the entire net proceeds will be expended for religious-charitable-educational purposes; that the undersigned does not hold a retail sales tax permit because receipts from sales at retail of tangible personal property in connection with such activities are expressly exempted from the Iowa Retail Sales Tax Law by the provisions of section 422.45, Code of Iowa, 1950.

Address of Purchaser Signature of Purchaser

ST-3P CERTIFICATE OF PROCESSING

The undersigned hereby certifies that% of Electricity, Gas, Oil, Coal (Cross out the ones not applicable) purchased from

..... (Name and Address of Seller)

is to be used in processing fabricating, compounding, manufacturing or germination of other tangible personal property intended to be sold ultimately at retail.

Address of Purchaser Signature of Purchaser

ST-7F CERTIFICATE OF EXEMPTION (Farm or Agricultural exemptions)

To: Name and Address of Retailer

A. This certificate is to be used only when the purchase is exempted from Iowa retail sales tax by the provisions of chapter 212, Acts of the 57th G.A. of Iowa (section 422.42, Code 1958) because it is:—

ITEM

(a) fuel consumed in farm tractors or other such vehicles engaged in agricultural production, \$..... ("fuel" does not include lube-oil or greases)

(b) materials, but not tools or equipment, which are to be used in

- (1) disease control (livestock) \$.....
(2) disease control (plants).. \$.....
(3) weed control \$.....
(4) insect control \$.....
(5) health promotion (livestock) \$.....

(6) health promotion (plants) \$.....

as a part of agricultural production for market.

- B. Total purchase price \$.....
C. Less exempted purchases.. \$.....
D. Net taxable purchases \$.....

The undersigned purchaser hereby certifies, for the purpose of claiming exemption from Iowa retail sales tax, that the amount of purchases listed after above item(s).

..... shown above are to be used for the purposes and the amounts stated therein and the name of the product purchased is indicated after the above "reason" for its claimed exemption and

are therefore exempted from retail sales tax by Chapter 212, Acts of the 57th G.A. of Iowa [section 422.42, Code 1958] and the Iowa State Tax Commission's rules pertaining thereto.

It is further understood that this certification is subject to verification and investigation by this retailer, as well as, by representatives of the State Tax Commission.

Signature of Purchaser

Date Address of Purchaser

[Amended August 5, 1958] (See Rule No. 94.1—Sales to Farmers)

24.1 Gross receipts expended for educational, religious or charitable purposes. The only time that an organization is exempt from sales tax when serving food or furnishing entertainment, is when the entire net receipts are expended for educational, religious or charitable purposes. When the facts do not indicate that the entire net proceeds are to be expended for any of the above-mentioned purposes then the gross receipts from such activities are taxable.

25 Tangible personal property used in processing—when exempt. Receipts from the sale of tangible personal property to processors and manufacturers which property, by the means of fabrication, compounding, manufacturing or germination, becomes an integral part of other tangible personal property intended to be sold ultimately at retail, are exempt from the retail sales tax.

Section 422.42

25.1 Fuel used in processing—when exempt. Receipts from the sale of tangible personal property, which is to be consumed as fuel in creating power, heat or steam for processing or generating electric current, are exempt from the retail sales tax.

The exemption provided in the case of tangible personal property consumed as fuel in creating heat applies only where such heat is directly applied in the actual processing of tangible personal property intended to be sold ultimately at retail, as distinguished from heat which is used for the purpose of heating buildings, whether such buildings be manufacturing or processing plants, warehouses or offices.

Persons engaged in operating refrigeration or cold storage locker plants to store property belonging to others are rendering a service, the gross receipts from which are not subject to sales tax. Such operators of course are not exempt when purchasing electrical energy for use in creating refrigeration or other purposes in connection with such service.

Laundrying, dry cleaning and repairing or renovation of tangible personal property belonging to others are not considered processing within the meaning of this rule, therefore, fuel used to create power, heat or steam for laundries, dry cleaners and persons rendering services on property of other people is not deemed to be used for processing and there-

fore such fuel is not exempted from the retail sales tax.

Fuel used in processing is exempt to creameries, dairies or ice cream factories only to the extent that such fuel or electricity, as the case may be, is used in the actual fabricating, manufacturing or compounding of the finished product and does not include fuel used for storage after the manufacturing process is completed.

The storage of property in cold storage or refrigeration plant is deemed to be a service and the electricity or fuel used in creating the cold is not exempted from the sales tax.

Fuel consumed in heating greenhouses is not considered as fuel consumed in processing and therefore is not exempted from sales tax. See rule No. 96.

STATEMENT WITH RESPECT TO GAS CONSUMED AS FUEL FOR PROCESSING

(Make a Separate Statement for Each Location)

....., hereinafter called the consumer, is using gas furnished by the at the premises known as and is claiming exemption from payment of the two percent tax imposed under section 422.42 of the Code, 1950, 1954.

The character of business for which such gas is used is

In support of this claim the consumer represents and declares that such gas is used for the purpose indicated by the following approximate percentages:

In order to determine the percentage of gas used for nonprocessing, which is subject to the two percent sales tax, an inventory of active connected load in cubic feet per hour must be made by the consumer for processing and for nonprocessing operations.

a. Processing connected load in cubic feet per hour capacity used for the following PROCESSING operations—(Indicate use and number of cubic feet).

- cubic feet of gas
..... cubic feet of gas
..... cubic feet of gas
..... cubic feet of gas
..... cubic feet of gas
..... cubic feet of gas
Total processing cubic feet of gas

b. Nonprocessing—(Indicate use and number of cubic feet).

Used for heating the building, general hot water service, or miscellaneous uses, not for processing.

- cubic feet of gas
..... cubic feet of gas
..... cubic feet of gas
Total nonprocessing cubic feet of gas
Grand total connected load cubic feet of gas

Percentage nonprocessing%

Webster's New International Dictionary defines Processed and Processing:

"1. To issue, to take out, process against, or to serve process upon. 2. To subject to some

special process or treatment. Specif. A. To heat, as fruit, with steam under pressure, so as to cook or sterilize. B. To subject (esp. raw materials) to a process of manufacture, development, preparation for the market, etc.; to convert into marketable form, as livestock by slaughtering, grain by milling, cotton by spinning, milk by pasteurizing, fruits and vegetables by sorting and repacking; in part, often distinguished from raw. C. To make usable, marketable, or the like as waste matter or in inferior, defective, decomposed substance or product, by a process, often a chemical process; as to process (rancid) butter, rayon waste, coal (dust), (beet) sugar. D. to produce or copy by photomechanical methods; to develop, fix, wash and dry, or otherwise treat (an exposed film or plate). E. Office practice—to produce (a letter) mechanically."

NOTE: In case gas used for nonprocessing operations is separately metered, notify the company to read these meters and the actual figures will be used at the average rate. Where gas used for nonprocessing operations is separately metered, thereby enabling the gas company to properly apply the exemption without determining percentage of use, the details on this form need not be furnished by the consumer. Instead, write in the statement, "All gas used for processing is separately metered."

These connected loads are subject to verifications and if found incorrect back taxes and penalties will be enforced.

This affidavit is made and delivered to the

Name of Supplier

in support of claim for exemption from the tax as provided in section 422.42, of the Code, on fuel consumed at the above described premises, said company requiring this statement to offer to the State Tax Commission, as evidence that said tax is not applicable to such fuel.

In the event the Tax Commission should find that tax exemption has been erroneously allowed, the undersigned consumer agrees to reimburse the supplier on demand in the amount of such tax, together with any penalties which may have accrued.

Consumer

Subscribed and sworn to before me this day of, 19.....

Notary Public

My Commission expires

25.2 Electricity used in processing—when exempt. Receipts from the sale of electricity to be used in the processing of tangible personal property intended to be sold ultimately at retail, are exempt from the retail sales tax.

The exemption provided in the case of electricity applies only upon the gross receipts from sales of electricity where such energy shall be consumed as power or otherwise di-

rectly constituting use or consumption in the actual processing of tangible personal property intended to be sold ultimately at retail, as distinguished from electricity which is consumed for the purpose of lighting, ventilating or heating of manufacturing plants, warehouses or offices. Where practicable, therefore, electricity consumed as power or directly used in actual processing shall be separately metered and separately billed by the supplier thereof to clearly distinguish such energy so consumed from electricity which is consumed for purposes or under conditions where the exemption would not apply. To effectuate the practical administration of the law, where it is impracticable to separately meter electricity which is exempt from that electricity upon which the tax will apply, the purchaser may furnish to his supplier a statement with respect to electrical energy used for processing which will enable the supplier to determine what percentage of electricity in the case of each purchaser is subject to the exemption. The following suggested forms have been submitted to the tax commission by representatives of both suppliers and consumers and its use in arriving at an equitable determination of a basis for exemption is acceptable to the commission. Where such statement is accepted by the supplier as a basis for determining the exemption, any changes in the total active connected load affecting the percentage of exemption would necessitate the filing of a new and revised statement by the purchaser. Where the electric energy is separately metered enabling the supplier to accurately apply the exemption in the case of processing energy, no statement need be filed by the purchaser, since the supplier under such conditions will separately record and compute the consumption of exempt energy apart from that energy which is subject to the tax.

STATEMENT WITH RESPECT TO ELECTRICAL ENERGY USED FOR PROCESSING

(Make a Separate Statement for Each Location)

..... hereinafter called the Consumer is using electric energy furnished by the Company at the premises known as and is claiming exemption from the payment of the two percent tax imposed under section 422.42, of the Code, 1950.

In support of this claim the consumer represents and declares, that such energy is used for processing, consumption or resale, as distinguished from lighting and other uses not processing.

The character of business for which such electrical energy is used is

That such electric energy is used for the purposes indicated by the following approximate percentages:

In order to determine the percentage of energy used for nonprocessing, which is subject to the two percent sales tax, an inventory of active connected load in watts must be

made by the consumer for processing and for nonprocessing operations. One horsepower of electric motor capacity shall be considered 850 watts (efficiency 86.6%).

Active connected load shall be that which is normally operated. Standby emergency equipment eliminated. Active lighting load shall be that which is normally used during dark hours, emergency lighting not exceeding 25% of the total may be eliminated.

(a) Processing connected load in watts used for the following processing operations.

- Watts
- Watts
- Watts
- Watts
- Watts
- Total Processing Watts

(b) Nonprocessing

- Lighting, including
- factory lighting..... Watts
- stoker motors,
- pump motors,
- ventilating motors,
- fan motors
- used for heating
- and ventilating
- the building, not
- for process. Watts
- Office equipment..... Watts
- Miscellaneous
- equipment (in-
- cluding refrig. for
- drinking water,
- etc.)
- Watts
- Watts
- Watts

- Total active connected load non-
- processing Watts
- Grand total connected load
- Watts
- Percentage of active connected
- load
- nonprocessing Watts

Webster's New International Dictionary defines Process-ed and Processing:

"1. To issue, to take out, process against, or to serve process upon. 2. To subject to some special process or treatment. Specif. A. To heat, as fruit, with steam under pressure, so as to cook or sterilize. B. To subject (esp. raw materials) to a process of manufacture, development, preparation for the market, etc.; to convert into marketable form, as livestock by slaughtering, grain by milling, cotton by spinning, milk by pasteurizing, fruits and vegetables by sorting and repacking;—in part part. often distinguished from raw. C. To make usable, marketable, or the like as waste matter or an inferior, defective, decomposed substance or product, by a process, often a chemical process; as to process (rancid) butter, rayon waste, coal (dust), (beet) sugar. D. To produce or copy by photomechanical methods; to develop, fix, wash and dry, or

otherwise treat (an exposed film or plate). E. Office practice—to produce (a letter) mechanically.”

NOTE: In case energy used for nonprocessing operations is separately metered, notify your power company to read these meters and the actual figures will be used at the average rate. Where energy used for nonprocessing operations is separately metered thereby enabling the power company to properly apply the exemption without determining percentage of use, this form need not be furnished by the consumer.

These connected loads are subject to verification and if found incorrect, back taxes and penalty will be enforced.

This affidavit is made and delivered to the Company in support of claims of exemption for the tax provided in section 422.42, of the Code, on electrical energy consumed at the above described premises and said company requested to offer this statement to the State Tax Commission, as evidence that said tax is not applicable to such electrical energy.

.....

Subscribed and sworn to before me this day of, 19.....

.....

Notary Public

My Commission expires

25.3 Steam used in processing—when exempt. Receipts from the sale of steam used in processing of tangible personal property intended to be sold ultimately at retail, are exempt from the retail sales tax.

The exemption provided in the case of steam applies only upon gross receipts from sales of steam where such steam is actually used directly in the processing of tangible personal property intended to be sold ultimately at retail, as distinguished from steam which is consumed for other purposes including the heating of buildings, irrespective of whether such buildings may be factories or processing plants, warehouses or offices. As in the case of electricity, where practicable, steam which is actually consumed directly for processing shall be separately metered to distinguish the steam so consumed from steam which is consumed for purposes other than for processing including the heating of buildings.

25.4 Commercial fertilizer and agricultural limestone. Receipts from the sale of commercial fertilizer or agricultural limestone, are exempt from the retail sales tax. See ruling of the attorney general of March 28, 1945.

25.5 Patterns and dies. Persons engaged in the business of making and selling patterns and dies to be used by other persons, in the manufacture of tangible personal property, are deemed to sell such patterns and dies at retail, the gross receipts from the sale thereof are, therefore, subject to the retail sales tax, if sold by a vendor in this state and if

purchased from a vendor outside this state the purchaser is taxable by the provisions of the use tax law.

When manufacturers purchase, or fabricate from raw materials purchased, dies, patterns, jigs, tooling, and other manufacturing or printing aids for the account of customers who acquire title to the property upon delivery thereof, or upon the completion of the fabrication thereof by the manufacturers, the manufacturers will be regarded as purchasing such property either as agent for, or resale to, their customers. The tax will apply, accordingly, with respect to either the manufacturer as agent of his customer, or with respect to the sale by the manufacturer to the customer.

In determining whether the manufacturer purchases the property on behalf of, or for resale to, his customer, the terms of the contract with the customer, the custom of usage of the trade and any other pertinent factors will be considered. For example, if the customer issues a purchase order for a pattern, die, or other tool, or on the purchase order for the goods itemizes or otherwise specifies the particular pattern, die or tool which will be required by the manufacturer to manufacture the goods desired by the customer, and the manufacturer obtains such item pursuant to the customer's specific order, billing, itemizing, or otherwise identifying it to the customer separately from the billing for the article manufactured therefrom, and either delivers it to the customer or holds it as bailee for the customer, it will be presumed that the manufacturer acquired the property on behalf of the customer or for immediate resale to him.

Manufacturers who manufacture or fabricate patterns, dies, jigs and tooling for their own use are liable for retail sales tax on the fabrication or production costs thereof. [Amended August 10, 1962]

Sections 422.42 (3), 422.42 (11) and 423.1 (1)

25.6 Explosives used in mines, quarries and elsewhere. Persons engaged in the business of selling explosives to miners, quarrymen or other persons are subject to the payment of retail sales tax on the gross receipts from the sale of such property when sold at retail in this state. The purchaser shall be liable for use tax upon all purchases for use in this state not subject to the retail sales tax. [Amended August 10, 1962]

25.7 Electrotypes, type, zinc etchings, halftones, stereotype, color process plates and wood mounts. Electrotypes, type, zinc etchings, halftones, stereotype, color process plates and wood mounts are taxable under the provisions of the retail sales tax law when sold to users or consumers. The above-mentioned articles do not become an integral or component part of merchandise intended to be sold ultimately at retail. The law imposes a retail sales tax on articles used directly in connection with manufacturing or printing, which do not become an integral part of the finished

products intended to be sold ultimately at retail. [Amended August 10, 1962]

25.8 Monotype and linotype makers and makers of photo-offset plates. Where a person is engaged in the business of casting monotype or linotype or in making photo-offset plates for others, the casting of types and making of plates is a service, where the title to the type metal and plate is retained by the maker thereof. The gross receipts from such services are not to be included in the gross receipts on which retail sales tax is computed.

Such type and plate maker is liable for use tax on monotype and linotype metal used in the performance of the service hereinbefore referred to, and on the zinc plates from which photo-offset plates are made, where such metal and plates are procured outside the state of Iowa and are liable to pay retail sales tax on said metal and plates when purchased in the state of Iowa.

25.9 Sale of bottled gas: Also sale of bottled gas cylinders and converting equipment. Butane and other like gases are at times sold in cylinders or drums, to persons who do not have access to orthodox gas service, and the gas thus purchased may be used for cooking, heating and other purposes. In some instances gas of this type may be used for propelling tractors or motor vehicle equipment and in such instances converting equipment is necessary in order that fuel in the type of gas may be used.

When gas of this type is sold and a motor vehicle fuel tax is collected thereon by the seller, then no sales tax or use tax is to be collected by the seller at the time of the sale. If motor vehicle fuel tax, imposed by the state of Iowa, is not collected by the seller at the time of the sale, then Iowa sales tax or Iowa use tax must be collected and remitted to the state tax commission, unless the transaction is otherwise specifically exempted from the sales tax or use tax laws.

If sales tax or use tax is not collected by the seller and paid to the state at the time of the sale, then any sales or use tax due will be collected by the treasurer of the state of Iowa at the time the user of the product makes application for a refund of the motor vehicle fuel tax.

The cylinders or drums which are loaned by the distributor or dealer of the gas and the title to which remains in the dealer would be subject to sales or use tax as the case may be. Likewise, gas converter equipment which might be sold to an ultimate consumer would be subject to a sales or use tax, as the case might be. Concerning purchases of cylinders or pressure tanks see commission's orders of January 23, 1950 and December 5, 1950.

(For leased equipment see rules 126 and 126.1)

26 Processing activities. The following enumerated activities by a processor are regarded as "processing activities," and there-

fore, receipts from sales of electricity or steam used directly to perform such activities by a processor are not subject to sales tax. Likewise, receipts from sales of coal, fuel oil, gas, or other tangible personal property, to be consumed as fuel by processors for performing such activities, are not subject to sales tax.

1. Manufacturing of tangible personal property of all kinds intended to be sold ultimately at retail, except that heating and lighting of the plant and office are not regarded as processing.

2. Pasteurizing of milk for sale.

3. Cooking of food for sale and keeping same warm until served, except that refrigeration, ventilation, and air conditioning are not regarded as processing.

4. Welding, shaping, and otherwise fabricating iron and steel products for sale, except that cutting or junking scrap iron is not regarded as processing.

5. Washing, grading, and crushing of rock and gravel for sale.

6. Hatching or incubation of chicks, except that the operation of brooders is not regarded as processing.

7. The purification of water for sale, except that the pumping of water is not regarded as processing.

8. Grinding feed and hulling oats for sale, drying, sorting and grading grain for sale and elevating it within elevators for such drying, sorting and grading, except that elevating grain into railroad cars or trucks is not regarded as processing.

The above list is not all-inclusive, but is intended only as a guide in the determination of activities that are considered "processing" activities as compared with activities not so considered. [Amended August 10, 1962]

26.1 Chemical compounds used to treat water. Chemical compounds, placed in the water, to be sold at retail, are used in processing. Therefore, the receipts from the sale of such chemical compounds for that purpose are exempt from sales tax. Likewise, persons purchasing chemicals for such purposes from out-of-state are exempt from use tax.

Chemical compounds used to treat water which is not to be sold at retail are used in processing and are not exempt from either sales or use tax.

EXAMPLE: Boiler compounds used to treat water used in boilers, which water is not to be sold at retail, are subject to sales tax or use tax. Similarly, chlorine or other chemicals used to treat water for a swimming pool are not used in processing and are taxable.

On the other hand, special boiler compound used by brewers where live steam is injected into the mash, which steam liquefies and becomes an integral part of the beverage intended to be sold at retail, does become a part of the finished product, is exempt from either sales or use tax, as the case may be.

27 Applies to sales tax only. Date of sale. A sale takes place when the ownership of, or

title to, tangible property passes to the purchaser, except in transactions whereby the possession of the property is transferred but the seller retains the title as security for payment of the selling price, in which case the sale is deemed to take place at the time the possession of the goods is transferred to the buyer.

Where there is a contract to sell unascertained goods, title does not pass until the goods are ascertained. Where the contract is to sell specific or ascertained goods, title passes to the buyer at such time as the parties to the contract intend it to be transferred, regard being had for terms of the contract and conduct of the parties, usages and customs of trade and the circumstances of the case.

In cases where the intention of the parties is not indicated, the following general rules may serve as a guide in determining when title transfers:

(1) Where there is an unconditional contract to sell specific goods in a deliverable state, title to the goods passes to the buyer when the contract is made, and it is immaterial that the time of payment or the time of delivery or both are postponed.

(2) Where there is a contract to sell specific goods, and the seller is bound to do something to the goods for the purpose of putting them into a deliverable state, title does not pass until such things be done to the goods.

(3) If the contract to sell requires the seller to deliver the goods to the place of business of the buyer, or to some other designated place, or calls for payment by the seller of transportation charges to one place or another, the title does not pass until the goods have been delivered to the buyer, or have reached the place agreed upon.

All relevant facts in each case must be examined in view of these principles to determine when title to property transfers.

28 Sales to the American Red Cross and U.S.O. The receipts from the sale of tangible personal property to the American Red Cross, the Navy Relief Society and U.S.O. are exempted from the Iowa retail sales tax.

Purchases made by the Red Cross or the Navy Relief Society or U.S.O. in interstate commerce for use in Iowa are exempted from the use tax.

29 Applies to sales tax only. Exemptions from retail sales tax. There are three methods by which the gross receipts from the sale of tangible personal property are not chargeable with sales tax. They are:

1. By specific exemptions, Code section 422.45.

2. Exclusion by definition, Code section 422.42.

3. Credit on tax, Code section 422.46.

This rule deals with the specific exemptions only. Exclusion by definition will be dealt with in rule No. 29.1 and credit on tax in rule No. 29.2.

The following are specifically exempted:

1. The gross receipts from sales of tangible personal property which the state is prohibited from taxing under the constitution or laws of the U. S. or under the constitution of this state. This exemption applies to retail sales to the state of Iowa and the U. S. government and its duly authorized agencies. The matter of the taxation of state and federal government is fully discussed in rules 47, 48, 50 and 50.1. Sales to counties, cities, towns and school districts are exempt. Rule No. 49. [Amended August 5, 1958]

Interstate sales are exempt from the retail sales tax when actual delivery of the tangible personal property sold is made outside the state or the property sold is shipped to a point outside the state of Iowa. For further regulation as to sales in interstate commerce see rule No. 55.

2. The gross receipts from the sales, furnishing or service of transportation service. This exemption applies to transportation service only and is not an exemption for freight and delivery charges when those charges become a part of the cost of the goods sold. The regulations as to this exemption may be found in rules No. 41 and 108.

3. The gross receipts from sales of tickets or admissions to state, county, district and local fairs, and the gross receipts from educational, religious or charitable activities, where the entire net proceeds therefrom are expended for educational, religious or charitable purposes. This exempts tickets for admission to state, county, district and local fairs. The exemption does not apply to concessionaires or any activities which are not directly and entirely controlled by the several fairs. The fact that fairs enter into contracts with concessionaires on a percentage basis for the privilege of exhibitions or entertainment does not exempt the concession from payment of tax on its gross receipts. On the other hand, sales of tickets for grandstand seats, horse shows and other activities operated entirely by the fair association, are exempt from retail sales tax. The other portion of this exemption relating to the gross receipts from educational, religious, or charitable activities is limited to those functions which clearly come within the term, educational, religious and charitable activities and does not include the operating places of business separate and apart from the main purpose of said activities. In order to take advantage of this exemption, the proceeds from such activities must be earmarked so as to show that the entire net proceeds are in fact expended or are to be expended for the purposes herein set forth. Rule No. 128.

4. That part of the gross receipts from sales of tangible personal property accepted as part consideration in the sale in Iowa of other property which is not in excess of the original trade-in valuation, provided the seller keeps an accurate record of the identity of such tangible personal property so as to show the name and address of the persons from whom

acquired and to whom sold, and the exact trade-in and sale price.

The application of this exemption is fully discussed in rule No. 40. However, the keeping of accurate and detailed records as provided by law and rule No. 2 is a condition precedent to this exemption.

5. Senate File 54, passed by the 51st General Assembly and approved by the governor, became effective by publication April 12, 1945.

Section one (1) of the Act exempts purchases from the United States government from the provisions of the retail sales tax law. However, section two (2) of the Act provides that tangible personal property purchased from the government of the United States or any of its agencies is subject to the use tax law. [Amended August 5, 1958]

Section 422.45

29.1 Applies to sales tax only. Exclusion by definition. It is a primary rule of statutory construction that the legislature is its own lexicographer. That is, when the legislature by law defines anything, that thing, in the eyes of the law, is as the legislature describes it regardless of the facts. In the statutory definition of "retail sale" or "sale at retail," certain things are defined as not being sales at retail which in the normal use of the language would be such sales. Exclusions by definition are:

a. Commercial fertilizer and agricultural limestone, see rule 25.4.

b. Another exclusion is electricity or steam when purchased and used in the processing of tangible personal property intended to be sold ultimately at retail. This exclusion is fully discussed in rules Nos. 25.2 and 25.3.

c. Tangible personal property used in processing.

This exemption applies only to property which enters into and becomes a part of some other article of tangible personal property intended to be sold at retail. That is, for any article to be excluded from the tax, that property must become an ingredient or component part of some other property to be sold at retail and it is exempt only when it becomes a part of other tangible personal property by means of fabrication, compounding, manufacturing or germination. This exemption is explained in rule No. 25.

d. Tangible personal property which is to be consumed as fuel in creating heat, power or steam for processing or for generating electrical current. Further discussed in rule No. 25.1. [Amended August 5, 1958]

Section 422.42

29.2 Applies to sales tax only. Credit on retail sales tax. When a special state tax is imposed on the sale of alcoholic liquor, gasoline, and diesel fuel at retail in Iowa, the rate of the special tax provides the statutory basis for the exclusion of sales tax on alcoholic liquor, diesel fuel and gasoline sales.

This rule is intended to implement section 422.46, Code of Iowa, 1962, and chapter 114, sec-

tion 31, Acts of the 60th General Assembly. [Amended August 5, 1958; August 10, 1962; November 30, 1964]

Section 422.46

30 Casual sales. Effective March 21, 1963, "Casual sales" have been legislatively defined and exempted from sales tax. This excludes any individual, partnership, corporation or association which is a retailer under the sales tax law from collecting or reporting sales tax on the sale of tangible personal property where such sales are on a nonrecurring basis and are for other than profit purposes.

This rule is intended to implement chapter 263, sections 1 and 2, Acts of the 60th General Assembly. [Amended August 5, 1958; Rescinded August 10, 1962; Amended November 30, 1964] [See 253 Iowa 994]

31 Applies to sales tax only. Bad debts. Bad debts are allowable as a credit on retail sales tax when all the following facts have been shown:

1. That retail sales tax has been previously paid on the gross receipts from the accounts on which taxpayer claims credit for tax;

2. That the accounts have been found to be worthless;

3. That the taxpayer has records to show that the accounts have actually been charged off on his books for income tax purposes.

Credit for bad debts is not allowable on merchandise which was exempt from retail sales tax when sold.

Credit for bad debts is allowable on retail sales tax only at the time such accounts are charged off for income tax purposes.

Where credit on tax has been taken on account of bad debts and the debts are subsequently paid, the proceeds from the collection of such accounts must be included in the gross receipts for the quarterly period in which payment is made.

Section 422.46

31.1 Recovery of bad debts by collection agency or attorney. Where bad debts have been charged off and later recovered in whole or in part through the services of a collection agency or an attorney, the full amount of the debt recovered should be included with the gross sales in the quarter in which collection is made. The services of an agency or an attorney are services purchased by a retailer and nothing more.

The amount collected by an agency or attorney is made in behalf of the retailer so that the actual recovery made by the retailer is 100 percent of the amount paid to the collection agency or attorney. The amount retained by the collector is merely a payment for services rendered.

32 Discounts — when deductible. A discount is an abatement from the face of an account, with the remainder, the actual purchase price of the goods charged in the account. The purchaser entitled to the discount never owes the face of the bill as his debt, his debt being the net of the bill after the agreed discount

has been deducted. The word "discount" therefore simply means to buy at a reduction.

Any discounts allowed by retailers and taken on taxable retail sales are proper deductions in collecting and reporting sales tax. This is not the case where a retailer offers a discount to a purchaser but bills and collects sales tax on the gross charge rather than the net charge. The customer must receive the benefit of the discount in order for the retailer to exclude it from his gross receipts.

Certain retailers (e.g.—gas and electric companies) bill their customers on a gross and net basis, with the difference considered to be a discount for payment purposes. Where a customer does not resolve the bill within the net payment period, sales tax applies on the gross charge shown on the billing.

If an over-allowance is granted by a retailer for merchandise received as consideration on a retail sale, it is not deemed to be a discount for sales tax purposes. All discounts allowed on transactions other than retail sales are not proper deductions for sales tax purposes.

This rule is intended to implement section 422.42(6), Code of Iowa, 1962. [Amended August 10, 1962; November 30, 1964]

32.1 Trading stamps not a discount. The Iowa Supreme Court held in the *Benner Tea Company vs. Tax Commission** case that the issuance of trading stamps by a retailer was not considered to be a discount for calculating and reporting sales tax. [Filed August 10, 1962]

33 Applies to sales tax only. Defective merchandise. If merchandise is sold to a customer who finds a defect in the goods and secures an allowance on the purchase price, the seller may deduct from gross receipts the amount allowed for defects.

No allowance shall be made for the credit on any merchandise which is exempt from the retail sales or use tax. No allowance shall be made for goods sold for resale and returned. No allowance shall be made for return of defective merchandise where the amount of the sale has not been reported in the taxpayer's gross sales and sales tax computed thereon.

33.1 Applies to sales tax only. Returned merchandise. When merchandise which has been sold by a taxpayer is returned by the customer who secures an allowance or a return of the purchase price, the seller may deduct the amount allowed as credit or refund provided that the merchandise is taxable merchandise and that the tax thereon has been either charged or paid.

No allowance shall be made for the return of any merchandise which is exempt from the retail sales or use tax. No allowance shall be made for goods sold for resale and returned. No allowance shall be made for return of merchandise where the amount of the sale has not been reported in the taxpayer's gross sales or sales tax previously paid thereon.

Section 422.42

34 Applies to sales tax only. Goods damaged in transit. If the title of goods shipped by a retailer has passed to the consumer and thereafter the goods are damaged in the course of transit to the consumer, the retailer will be liable for the tax upon the full selling price of the goods as the sale will have been completed. If the title to the goods did not pass to the consumer, the sale to the consumer is not completed and there will be no tax on the retailer for the amount agreed to be paid by the consumer.

If the goods are destroyed, the tax will not apply to the damages paid the retailer for their destruction. If the goods are not destroyed and if upon the payment of damages the carrier acquires title to the goods in their damaged condition, the tax will apply to that portion of the damages paid which represents the fair retail value of the goods in their damaged condition at the time the carrier obtained title thereto unless they are purchased by the carrier for the purpose of resale.

Amounts paid as damages to owners who are not in business are not subject to the tax.

35 Applies to sales tax only. Consignment sales. Where retailers receive articles of tangible personal property on consignment from others and the consigned merchandise is sold in the ordinary course of business along with other merchandise owned by the retailer, such retailers or consignees are held to be making sales at retail. In such cases, the returns shall be filed and the tax remitted to the state by the consignees, along with their remittances and returns of gross receipts from the sale of other merchandise.

Where a person operates for the purpose of selling property for others, such person is deemed to be a retailer and shall procure a retail sales tax permit and be liable for the retail sales tax, the same as if the property sold had belonged to him. [Amended November 30, 1964]

This rule is intended to implement section 422.42(5), Code of Iowa, 1962.

36 Applies to sales tax only. Leased departments. Where a person who holds a retail sales tax permit and is engaged in the sale of tangible personal property at retail in Iowa leases a part or parts of the premises where his retail business is conducted to other persons who are independently engaged on the leased premises in selling tangible personal property at retail in Iowa, the receipts from which are subject to the retail sales tax, the lessor shall immediately notify the commission as to the name and home office address of the lessee, the type of merchandise the lessee is engaged in selling, and the date when the lessee began making such sales at retail in Iowa on said leased premises.

The lessor shall furnish such information on Form ST-200 which will be provided by the commission upon request and indicate on such form whether the lessee has secured a retail

sales tax permit and will account directly to the commission for the sales tax due, or whether the lessor will incorporate in his sales tax return the receipts from the sales at retail of the lessee subject to the law.

If the lessor fails to notify the commission that a department has been leased and to furnish information as to the lessee's address, starting date, and type of business, the lessor shall be held responsible for the sales tax due as a result of the sales at retail made by the lessee subject to the sales tax law, unless the lessee shall have properly remitted the tax due.

The lessor who has leased a department or departments shall show on the reverse side of his, the lessor's retail sales tax return ST-50, the names and addresses of all lessees operating a leased department and after the name of each lessee shall show the amount of net taxable sales made by said lessee and which net taxable sales are included in the lessor's return, in the instance where the lessor is accounting for the lessee's sales; or the sales tax permit number of the lessee, where the lessee is reporting his tax directly to the commission.

The lessor shall notify the commission immediately when the lessee has terminated his selling activities.

Hereinafter set out is Form ST-200, a copy of which will be furnished by the commission upon request for the lessor's use in reporting the leased departments. A separate report should be made for each lessee.

Form ST-200

LESSOR'S NOTICE OF LEASING DEPARTMENT TO THE: IOWA STATE TAX COMMISSION RETAIL SALES TAX DEPARTMENT

(Name and Business Address of Lessor) hereby notifies you that it is operating a place of business at the above address and is there engaged in selling tangible personal property at retail in Iowa, for which it holds retail sales tax permit No.

That on the.....day of....., 19....., it leased a space or a department in said place of business to the lessee hereinafter described, for the lessee's use in selling tangible personal property at retail in Iowa.

(Name of Lessee) (Address of Lessee's Principal Place of Business—Street—City—State) (Type of Tangible Personal Property which Lessee is selling at Retail) (Date Lessee began Selling at Retail from Leased Premises, day, month, year)

Will lessor report and remit to the Retail Sales Tax Department under its (the lessor's) permit No..... the retail sales tax on sales at retail made by lessee from the above leased location?

(Answer "Yes" or "No")

Will lessee report and remit directly to the Sales Tax Department the retail sales tax on

sales made at retail by the lessee from the above leased location?

(Answer "Yes" or "No")

Does the lessee now hold a retail sales tax permit for the above leased location?

(Answer "Yes" or "No")

If the answer is "Yes" what is the number of the permit so held?

.....

(Name of Lessor)

By.....

(Date)

NOTE: The sales tax permit number appears above the taxpayer's name on the sales tax permit.

37 Federal excise taxes. After the passage of the Revenue Act of 1941, the commission ruled that federal manufacturers' excise tax imposed by that Act may not be deducted from the selling price of tangible personal property as a base for computing the Iowa retail sales tax or use tax, except sales made directly to the user or consumer by the manufacturer.

The commission further held that the retailers' excise tax is not imposed until the sale is actually made. Therefore, the retailers' excise tax is not part of the selling price of the tangible personal property and is not included in the base on which the retail sales or use tax is computed.

In all cases where the retailers' excise tax is billed or charged as a separate item, or in any event, where it has been definitely shown by the retailers that the retailers' federal excise tax was included in the price for which the article was sold, deductions from gross sales can be made in an amount equal to the tax paid by the retailer to the federal government.

Federal manufacturers' excise taxes are to be included in the gross sales on which tax is computed, unless, the manufacturer acts as retailer and sells directly to the consumer, in which case, the tax may be deducted in computing gross sales. The manufacturer's federal excise tax is considered as part of the wholesale price and is not to be deducted by the retailer when making a sale at retail.

37.1 Federal manufacturers' excise taxes. This commission has consistently held that federal manufacturers' excise taxes levied by prior revenue acts constituted a part of the purchase price of articles subject to the tax when sold to retailers and was, therefore, a part of the tax base for the purpose of computing Iowa sales tax. This rule has not been changed.

EXAMPLE 1: Sale by Manufacturer Direct to Consumer:

The "X" Adding Machine Company, an Iowa manufacturer, sold to "Y," an Iowa consumer, an adding machine which it had manufactured. The "X" Adding Machine Company invoiced the adding machine to "Y" as follows:

X Adding Machine\$150.00 Federal Tax 15.00

\$165.00

The Iowa sales tax is \$3.00, 2% of \$150.00.

EXAMPLE 2: Sale by Retailer:

The "A" Vacuum Cleaner Company sold for resale an electric vacuum sweeper which it had manufactured to the "B" Electric Appliance Company, an Iowa company, and the invoice read as follows:

Model 1040 Sweeper	\$40.00
Federal Tax	4.00
	\$44.00

The "B" Electric Appliance Company sold the vacuum sweeper to "C," an Iowa consumer, and invoiced it as follows:

Model 1040 Sweeper	\$64.00
The Iowa sales tax is \$1.28, 2% of \$64.00 and this would be so, had the invoice read:	
Model 1040 Sweeper	\$60.00
Federal Tax	4.00
	\$64.00

37.2 Federal retailers excise taxes. The federal government imposes on jewelry, furs, toilet preparations and luggage sold at retail, a tax equivalent to ten percent of the price for which it is sold.

The tax commission holds that the retailers excise tax is imposed on the purchaser and does not subject it to the Iowa sales tax. This type of federal tax is different in application than the manufacturers excise tax and it likewise affects the Iowa sales tax. [Amended August 10, 1962]

37.3 Federal admission tax. Certain admission charges previously exempted from federal admission taxes are denied exemption by the Revenue Act of 1941. Such exemption has previously applied to charges for admission when all the proceeds from all such charges inured to the benefit of charitable, religious or educational organizations or to agricultural fairs. Although the amendment to the federal admission tax law provides for the collection of the federal admission tax on all amounts charged for admissions, unless specifically exempted, the method of computing the Iowa admissions tax as outlined in rule No. 20, is unaltered, except that the federal excise tax shall not be considered a part of the admission on which the Iowa sales tax is computed. [Amended August 5, 1958]

37.4 Federal excise tax on electric light bulbs. The federal tax on electric light bulbs is a manufacturers tax and not a retailers tax, therefore, the retail sales tax must be computed on the full selling price of the electric light bulbs including the so-called excise tax added to the selling price by the retailer. [Amended August 10, 1962]

37.5 Federal excise tax on auto parts. The federal excise tax on automobile parts is a manufacturers' tax, therefore, the tax must be computed on the full selling price including the so-called tax, for the same reason as set forth in rule No. 37.4.

37.6 Federal tonnage tax. The federal tonnage tax, being a tax similar to the federal retailer's excise tax, does not become a part of the selling price of tangible personal property sold at retail and is, therefore, excluded from the gross receipts on which retail sales tax is computed. This rule applies only to tax on delivery after a retail sale shall have been made. Tax on transportation prior to a retail sale becomes part of the cost of the goods and is not exempt from the gross receipts upon which retail sales tax is computed.

38 Sale of Motor Vehicles—New and Used—By Dealers. Section 423.8 exempts from the retail sales law, receipts derived from the sale at retail in Iowa of new motor vehicles and new trailers which are required to be registered under the motor vehicle laws of Iowa. However, motor vehicle or trailer dealers, selling at retail in Iowa are required to hold a retail sales tax permit and upon filing their quarterly sales tax returns shall show the amount of their gross receipts derived from the sale of such new motor vehicles or new trailers and shall take appropriate deductions, in the space provided on the return Form ST-50, for such items.

Persons engaged in the business of selling at retail in Iowa used motor vehicles or used trailers are not exempted from retail sales tax, but are liable for the payment of sales tax on such gross receipts, subject to the provisions of the "Trade-in" Rule No. 40, and the provisions of the sales tax law.

However, the purchaser of a new motor vehicle or new trailer is subject to the payment of use tax when such item is registered in Iowa under the Iowa motor vehicle law, and the county treasurer or the motor vehicle registration division, department of public safety, whichever issues the registration, shall collect the use tax and furnish a receipt therefor as provided for by section 423.7 and Rule No. 199.

"New motor vehicle" shall mean any motor vehicle of a type subject to registration under the laws of this state which has not been previously registered in this or any other state.

"Used motor vehicle" shall mean any other motor vehicle than a "new motor vehicle". [Filed August 5, 1958]

Sections 423.1(7), 427.7 and 423.8

39 Dealers selling new trailers, including house, farm and other trailers. Section 423.8, Code of Iowa, provides that motor vehicle and trailer dealers are exempted from sales tax with respect to their receipts from retail sales of new motor vehicles or new trailers, as these terms are defined in the motor vehicle law of Iowa, which are required to be registered under such motor vehicle law.

The Iowa motor vehicle law, was amended, effective July 4, 1961, by chapter 108, Acts 59G.A., to provide that all "House Trailers" and "Mobile Homes" be registered under section 321.123, whether or not for highway use.

This means that Iowa dealers receipts from sales at retail of new house trailers and new mobile homes made on and after July 4, 1961, are exempted from sales tax. Such dealers should report such receipts on their quarterly sales tax returns to the state tax commission and take appropriate deductions under 2 (F) of the return.

The county treasurer or state motor vehicle registration division shall, before issuing a registration for a new house trailer or new mobile home sold on or after July 4, 1961, collect the use tax due and give a proper receipt therefor and report and remit same in its monthly report to the commission.

With respect to each "Mobile Home" and each "House Trailer" for which application for registration is made, which has not been previously registered in Iowa under the motor vehicle law, as well as such units which may have been registered in another state, but have been purchased by non-Iowa consumers, the office issuing the registration shall collect any use tax due, or secure an affidavit form UT-503 and state thereon the reason why use tax is not due, if this be the case, even though the applicant may have acquired the unit before July 4, 1961.

A consumer before July 4, 1961, buying a house trailer or mobile home either new or used, from an Iowa dealer, where the use tax was not paid nor the sales tax paid the dealer would be a situation where tax would appear due, and section 321.30 (6) of the motor vehicle law provides registration shall be refused if the required sales tax was not paid to the dealer, as well as section 423.7 of the use tax law providing use tax due shall be paid before registration. If there is a proper basis for exemption, the complete facts should be given on affidavit form UT-503, the reverse side to be used if space is needed.

The office issuing the registration need not review, for sales or use tax purposes, an application for registration of a mobile home or house trailer purchased by the applicant longer than five years before the date of the application for registration. [Amended August 10, 1962]

Section 321.123

Sections 423.7 and 423.1 (7)

40 Applies to sales tax only. Sales of trade-in allowance deduction. A.1. The general rule is that the gross receipts from the sale of tangible personal property at retail in Iowa is subject to a two percent tax, unless expressly and specifically excluded or exempted in the law itself. It is immaterial whether the gross receipts were derived from the sale at retail of new or used tangible personal property, and further, it is immaterial whether or not purchaser pays the retailer for the merchandise in cash, credit or uses other tangible personal property in part or in whole consideration for the payment of the purchase price, inasmuch as "Gross Receipt" is defined in the law as meaning the total amount for which

property is sold, valued in money whether received in money or otherwise.

2. One exception from the general rule stated in the preceding paragraph is due to the provisions of the retail sales tax law found under subsection 5 of section 422.45, Code of Iowa, which reads in part as follows:

"*Exemptions:* There are hereby specifically exempted from the provisions of this division and from the computation of the amount of tax imposed by it, the following:

5. That part of the gross receipts from sales of tangible personal property accepted as part consideration in the sale in Iowa of other [tangible personal] property which is not in excess of the original trade-in valuation, provided the seller keeps an accurate record of the identity of such tangible personal property so as to show the name and address of the person from whom acquired and to whom sold and the exact trade-in and sale price.

A retailer who collects sales tax on the selling price of traded-in tangible personal property in excess of the tax due from the purchaser shall be deemed to have thereby waived the right to claim the exemption provided for in this subsection and the tax so collected shall be due to the state of Iowa and remitted to the state tax commission, as provided by this chapter, and be credited to the state road tax fund."

B.1. An article of tangible personal property acquires a trade-in status under the provisions of the retail sales tax law, subsection 5 of section 422.45, only when it is acquired by the retailer as part consideration, full consideration or greater, concerning the sale at retail in Iowa of other tangible personal property and further provided the retailer keeps the necessary records required herein.

2. Property acquired as consideration from the sale of other property at wholesale or for resale, or any other sale except at *retail in Iowa*, does not require a trade-in status. [Amended August 5, 1958]

3. Where property is sold in interstate commerce subject to use tax and other property is taken in as payment, the latter does not acquire a trade-in status, because the sale was not at retail in Iowa, and further because no provision exists in the use tax law relative to trade-ins or their exemption.

4. Whenever a retailer acquires from another retailer (hereinafter referred to as the "original retailer") property having a trade-in status under rule B.1, above, of the commission and receives from the original retailer the latter's affidavit on a completed form prescribed by the commission specifying the identity of such property, the amount of the trade-in allowance thereon, the cost of all parts added thereto by the original retailer and the name and address of the person from whom said property was received by the original retailer in trade, such property shall have the same trade-in status as it had in the hands of the original retailer. Such affidavit shall be retained by the acquiring retailer among his

trade-in records. [Amended November 30, 1964]

This rule is intended to implement section 422.45 (4), Code of Iowa, 1962. (This paragraph of rule No. 40 was not approved by the Department Rules Review Committee.)

C.1. Where tangible personal property, which has acquired a trade-in status under the provisions of the law and the rules of the commission, is sold at retail in Iowa the gross receipts therefrom are exempted in an amount not to exceed the trade-in allowance, provided proper accounting is made and kept of tangible personal property in the form of parts, repairs or accessories added to the trade-in by the seller prior to its sale by said seller.

2. The retailer when preparing his retail sales return shall indicate and reflect under "item 1" the total selling price of trade-ins sold during the quarterly period covered by the return. The proper trade-in allowance deduction, with respect to the sale of such trade-ins as are reported under "item 1," should be shown under "item 2g" of the sales tax return and the amount of such deduction to be determined in the manner set forth in part "E" of this rule.

D.1. The gross receipts from the sale of traded-in property in excess of the trade-in allowance is subject to the two percent sales tax and the retailer shall pass the amount of the tax due on to the consumer customer.

2. The amount of tax to be collected by the retailer from his customer shall be determined by the retailer at the time of such sales transaction where traded-in tangible personal property is sold and an entry shall be made by the retailer in his records concerning each individual transaction.

3. The trade-in records shall reflect:

- (1) The identity of the trade-in;
- (2) The name and address of the person from whom same was acquired;
- (3) The identity of the property sold when the trade-in was acquired;
- (4) The amount in dollars of trade-in allowance by dealer;
- (5) The cost price to the dealer in dollars of any tangible personal property, in the form of repairs, parts or accessories added by the dealer to the trade-in before its sale by the dealer;
- (6) Name and address of person to whom trade-in was sold;
- (7) The amount of gross receipts by the dealer from the sale of the trade-in;
- (8) The amount of sales tax charged the customer by the dealer concerning the sale of the trade-in;
- (9) The amount of trade-in allowance deduction, which the dealer is entitled to take, if any, concerning each sales transaction, as determined from the application of part "E" of this rule.

E.1. Where a trade-in, on which *no parts have been added*, is sold at retail for an amount less than the trade-in allowance, the dealer

would owe no tax and would therefore not be entitled to charge any tax to this customer. The dealer's trade-in allowance deduction in this case would be an amount equal to the selling price of the trade-in.

2. Where a trade-in, on which *no parts have been added*, is sold at retail for an amount greater than the trade-in allowance, the dealer would owe a tax of two percent of the amount in excess of the trade-in allowance, which amount of tax he would be entitled to pass on to the consumer customer. The dealer's trade-in allowance deduction in this case would be the actual trade-in allowance.

3. Where a trade-in, on which *parts have been added*, is sold at retail for an amount less than the trade-in allowance, the dealer would owe two percent tax on his purchase price of parts so added, and this amount of tax he would be entitled to charge his consumer customer. The dealer's trade-in allowance deduction in this case would be an amount equal to the selling price of the trade-in less the cost of the parts added.

4. Where a trade-in, on which parts have been added, is sold at retail for an amount which exceeds the trade-in allowance to the extent of the cost of or greater of the parts added, the dealer would owe two percent tax on the amount in excess of the trade-in allowance, which tax he would be entitled to pass on to his consumer customer. The dealer's trade-in allowance deduction in this case would be the actual trade-in allowance.

5. Where a trade-in, on which parts have been added, is sold at retail for an amount which exceeds the trade-in allowance but not to the extent of the cost of the parts added, the dealer would owe two percent tax on his purchase price of the parts added, which amount of tax he would be entitled to pass on to his consumer customer. The dealer's trade-in allowance deduction in this case would be the actual trade-in allowance less the amount by which the excess selling price fails to equal the cost of the parts added.

6. Where a trade-in is sold at retail and the retailer collects tax from the purchaser in excess of the tax due, the total tax collected shall be due the state. In such cases the dealer's trade-in allowance, if any, to which he might have been otherwise entitled but for the excessive tax collection, shall be reduced by an amount equal to the amount on which excessive tax was collected from this customer. If tax is collected by the dealer on the full selling price of the trade-in, then the full tax shall be remitted to the state and of course the dealer would not be entitled to any trade-in allowance deduction on such transaction.

7. Where property is taken in by a retailer as consideration for the sale of other merchandise, which trade-in property has a greater value than the merchandise sold, the actual trade-in allowance shall be for the purpose of this rule, an amount equal to the selling price of the merchandise sold.

F.1. Where a trade-in has been sold at retail and is repossessed, the dealer who sold and repossessed may take credit on his sales tax return for the quarter during which the item is repossessed, in an amount equal to any excess sales price on which he has previously reported and remitted the sales tax to the state, provided he has not collected from his customer the selling price in excess of the trade-in allowance, prior to the repossession. On the next sale the trade-in allowance will be the actual trade-in allowance less the amount of selling price collected by the dealer on the previous sale.

2. If the dealer has remitted no sales tax to the state on a trade-in sale, then upon repossession the dealer would be entitled to no repossession credit. However, when sold again the trade-in allowance would be the actual trade-in allowance less the amount of sale price collected on the previous sale.

G.1. Unless the records required herein are kept and maintained no trade-in allowance deductions will be recognized by the commission.

2. Any changes or modifications reflected herein from previous rulings of the commission shall be effective as of January 1, 1951.

41 Freight, delivery and other transportation charges. When tangible personal property is sold at retail in Iowa and under the terms of the sales agreement the seller is to deliver the property to the buyer at a certain point and does so deliver it, the charge made by the seller for delivering the property shall be considered a part of the gross receipts of the seller from the sale and subject to the sales tax, even though the charge is separated, in the seller's billing to the consumer, or even though the purchaser pays the carrier and deducts the charge from the billing.

When tangible personal property is sold at retail in Iowa and the seller under the terms of the sales agreement has no responsibility to deliver the property sold to the buyer, but does so deliver it, any charges for freight or transportation separately stated in the billing to the consumer and in the seller's records are not a part of the gross receipts from the sale and are not subject to the sales tax.

In other words, freight or transportation charges which occur before the sale is completed are the expense of the seller and are a part of the tax base on which the tax is computed whether or not they are separately shown, whereas, freight or transportation charges which occur after the sale is completed is the expense of the buyer, and if separated on the seller's records and billing to his customer are not a part of the tax base on which the tax is computed. [Amended August 10, 1962]

Sections 422.42 (6), 422.42 (2) and 422.45 (2)

42 Installation charge where tangible personal property is sold at retail. In general the gross receipts derived from the furnishing of services rendered apart from the sale of tangible personal property are not subject to the retail sales tax.

Where the sale of tangible personal property involves a charge for the installation of the property sold, in instances where the property remains personal after installation, the sales tax shall be measured by two percent of the entire receipts from the sale, including the installation, unless the installation charge is set out separately and apart to the purchaser from the charge made for the personal property installed.

The value of labor or services used in connection with the fabrication of tangible personal property is never to be excluded from the receipts on which the tax is computed, where the tangible personal property fabricated is sold at retail.

43 Wholesalers and jobbers selling at retail. Sales made by a wholesaler or jobber to a purchaser for use or consumption by himself or in his business, and not for resale, are subject to the sales tax even though made at wholesale prices or in wholesale quantities. Such wholesalers or jobbers must keep accurate records of sales and pay the retail sales tax on sales for use or consumption.

Sales made to employees or through employees to consumers are subject to the sales tax. [Amendment filed August 19, 1954]

Where wholesalers principal business is selling tangible personal property for resale purposes, a request to the tax commission should be made to only include the retail or taxable sales on the quarterly return. When this request is honored, it will not be necessary for the wholesaler to report all retail sales in the gross sales and then deduct them intact. [Amended August 10, 1962]

Section 422.51

44 Materials and supplies sold to retail stores. Receipts from the sales of materials and supplies to retail stores for their use and not for resale are subject to the sales tax. The retail store is the final buyer and ultimate consumer of such items as fuel, cash registers, adding machines, typewriters, stationery, display fixtures, and numerous other commodities which are not sold by the store to its customers.

45 Applies to sales tax only. Trustees, receivers, executors and administrators. Where trustees, receivers, executors or administrators, by virtue of their appointment, continue to operate, manage or control a business involving the selling of tangible property or engage in liquidating the assets of a business by means of sales made in the usual course of trade, they must hold retail sales tax permits and collect and remit the sales tax. Such officers are liable to collect and pay either sales or use tax notwithstanding the fact that they may have been appointed by a state or federal court.

A retail sales tax permit of a ward, decedent, cestui que trust, bankrupt, assignor or a debtor for whom a receiver has been appointed which is valid at the time fiduciary

relation is created shall continue to be a valid permit for the fiduciary to continue the business for a reasonable time or for closing out the business for the purpose of settling an estate or terminating or liquidating a trust.

46 Applies to sales tax only. Mortgages and trustees. The receipts from a sale of tangible personal property at public auction pursuant to the provisions of a chattel mortgage are not taxable if (1) the sale is made by virtue of a court decree of foreclosure by an officer appointed by the court for that purpose or (2) if the property is bid in by the mortgagee.

The tax applies to receipts from other foreclosure sales where goods and chattels are sold at retail.

47 Sales by or to the United States government. Sales of tangible personal property made directly by or to the United States government or to recognized agencies or departments of the United States government are not subject to the sales tax. Sales to a United States post office, a veterans hospital, or to any other recognized agency, instrumentality or department under federal control are not subject to the tax. [Amended August 10, 1962]

Sales of food stuffs and meals by a cafeteria or a restaurant operated by a United States post office, whether made to federal employees or to others, are not subject to the tax.

Sales at retail made directly to patients, inmates or employees of an institution or department of the United States government are taxable sales since not made directly to the government. However, sales similarly made by post exchanges and other establishments organized and controlled by federal authority are not subject to the tax.

AGENCIES AND ACTIVITIES IN FEDERAL AREAS WHICH ARE DEEMED FEDERAL INSTRUMENTALITIES

Post funds
 Post exchanges
 Company funds
 Officers club funds
 Athletic activities funds
 Public relations officers funds
 Provost marshal activities funds
 War department theater activities funds
 Recreation center board activities funds
 Noncommissioned officers' club activities funds.

48 Sales to the United States government or to the state of Iowa. Sales to the United States government or to the state of Iowa, or to federal bureaus, departments or instrumentalities, are not taxable, provided such sales are ordered on prescribed government forms of purchase order, and are paid for directly to the seller by warrant on government funds. [Amended August 10, 1962]

48.1 Applies to sales tax only. Sales by the government of the United States. Sales made by the government of the United States are exempt from the retail sales tax.

49 Sales to agencies or instrumentalities of federal, state, county and municipal government exempt. Construction contractors taxable. The gross receipts of all sales of goods, wares or merchandise used for public purposes to any tax-certifying or tax-levying body of the state of Iowa or governmental subdivision thereof, including the state board of regents, board of control of state institutions, state highway commission and all divisions, boards, commissions, agencies or instrumentalities of state, federal, county or municipal government which derive disburseable funds from appropriations or allotments of funds raised by the levying and collection of taxes, except sales of goods, wares, or merchandise used by or in connection with the operation of any municipally-owned public utility engaged in selling gas, electricity or heat to the general public, are exempt from sales and use tax.

This tax exemption does not apply to construction contractors who create or improve real property for federal, state, county and municipal instrumentalities or agencies thereof. The contractors therefore are subject to sales and use tax on all personal property they purchase regardless of the identity of their construction contract sponsor. [Filed August 19, 1954; amended November 30, 1964]

See section 422.45

This rule is intended to implement section 422.45(5), (6), as amended by chapter 264, Acts of the 60th General Assembly.

49.1 to 49.3 Stricken August 19, 1954.

50 Sales to certain corporations organized under federal statutes. Sales of tangible personal property or taxable services to the following corporations are sales for final use or consumption to which the sales tax applies: Federal savings and loan associations, national banks, federal savings and trust companies, and other organizations of like character.

50.1 Sales to certain federal corporations. As a result of the decision of the United States Supreme Court in Federal Land Bank of St. Paul v. Bismarck Lumber Company, 314 U. S. 95, 62 S. Ct. 1, this commission holds that the following federal corporations are immune from the imposition of retail sales tax and consumers use tax in connection with their purchases.

1. Federal Land Banks
2. Federal Deposit Insurance Corporation
3. Home Owners' Loan Corporation
4. Commodity Credit Corporation
5. Federal Farm Mortgage Corporation
6. Federal Home Loan Banks
7. Reconstruction Finance Corporation
8. Defense Plant Corporation
9. Defense Supplies Corporation
10. Metals Reserve Company
11. Rubber Reserve Company
12. Reconstruction Finance Corporation Mortgage Company
13. Federal National Mortgage Association
14. Disaster Loan Corporation

The federal statutes creating the above corporations contain provisions substantially identical with section 26 of the federal farm loan Act which the court construed as barring the imposition of state and local retail sales taxes.

This rule applies only to the imposition of the tax upon the federal agencies as the ultimate consumers and does not limit the authority of this commission to require the agencies to collect the retail sales tax or consumers use tax upon sales made by them.

51 Applies to sales tax only. Relief agencies. Relief agencies, except those operated directly by the state of Iowa, are not exempt from retail sales tax, however, the law does provide that a relief agency may apply to the commission for refund for the amount of sales tax paid by it upon purchase of goods, wares or merchandise used for free distribution to the poor and needy.

In order that refund of sales tax paid on purchases used in free distribution to the poor and needy may be considered, the following requirements must be complied with:

1. Application shall be filled in with pen and ink or typewritten on form ST-52 supplied by the commission.

2. Name of agency, and the quarterly period for which refund is claimed must be shown on the face of all applications.

3. Applications shall be signed, notarized, and filed with the commission in duplicate.

4. Applications shall include only payments made during one quarterly period, and shall be filed within forty-five days after the end of that quarterly period.

5. Applications shall include only payments made for goods, wares or merchandise used for free distribution to the poor and needy.

6. In the "Warrant or Voucher Number" column, applicant shall show the number of warrant or voucher that was tendered to the merchant in payment of the purchases listed. The date on which the warrant or voucher was issued must be shown above the listings of the warrants or vouchers issued on that date.

7. Name of the merchant or company from whom the merchandise was purchased shall be shown in the "Purchased From" column.

8. Merchant or company's sales tax permit number shall be shown in the column entitled "Permit Number," as well as the address of that merchant in column entitled "Address."

9. In the column provided for "Type of Purchase" applicant shall describe as clearly as possible the nature of the merchandise purchased. Applicants shall not use such indefinite terms as merchandise, supplies, hardware, repairs and the like, as such terms do not furnish sufficient information.

10. The amount of the warrant or voucher and the amount of tax paid shall be shown in the columns so provided. Each individual column must be totaled at the bottom of every page. The last page of the application must also show the grand totals.

11. The relief agency shall prove to the satisfaction of the commission that the person making the sales has included the amount thereof in the computation of his gross receipts and that such person has paid the tax levied by the retail sales tax Act on such sales to the relief agency.

12. Where purchases shall have been made for institutions such as county poor farms, orphanages and the like, the portion of the purchases consumed by the employees is not refundable, therefore, so that correct percentage figures may be determined, those institutions which file applications for refund of sales tax are required to submit with their applications one copy of form entitled "Charitable Institution Questionnaire." Such information must be furnished on this questionnaire to properly determine percentage basis for the refund.

There is no provision in the law for the refund of use tax paid by relief agencies.

Section 422.47

52 Containers — including packing cases, shipping cases, wrapping material, etc. Receipts from the sale of containers, labels, cartons, packing cases, wrapping paper, wrapping twine, bags, bottles, shipping cases, and similar articles and receptacles sold to manufacturers, producers, wholesalers, retailers, or jobbers, which are used by the groups last mentioned as containers which hold or encompass the tangible personal property which they are engaged in selling, either for resale or at retail, provided the charge made for the property sold includes the container and the title to the container passes to the purchaser with the merchandise sold, are not subject to the Iowa retail sales tax.

The receipts from the sale of containers as hereinbefore described are subject to the retail sales tax when such containers are sold to persons who use such containers in connection with the sale of tangible personal property where such person retains the title to the container. In many such cases the seller at retail of tangible personal property purchasing containers makes a deposit charge to insure the return of the container.

Receipts from the sale of containers as hereinbefore described, when made to persons who are solely engaged in rendering service, the receipts from which are not subject to the retail sales tax law, and where the containers are used in connection with the rendition of such services, are subject to the retail sales tax.

Sales of containers, cartons, packing cases, wrapping paper, bags, and similar articles and receptacles sold to other than manufacturers, producers, wholesalers, and jobbers, may be divided into two groups, as follows:

a. Those which ordinarily are delivered with the merchandise sold to the final buyer or ultimate consumer where no separate charge is made therefor. This class includes such items as boxes, cartons, paper bags, wrap-

ping paper and wrapping twine, in which purchases are delivered to customers. The sale of such containers is not taxable except in the case of such containers and supplies sold to one whose gross receipts are not taxable by reason of being service institutions, such as dry cleaners, laundries and similar service. Persons rendering service are the consumers of such items, and sales of them are taxable.

b. Containers which are used for the purpose of delivering tangible personal property sold to customers, which are to be, or may be, returned to the seller of the tangible personal property. This class includes such containers as milk bottles, water bottles, carboys, drums, and many others, the title to which remains in the seller and which are ordinarily used by him in making other deliveries. He consumes or uses them in his business and the sale to him of such containers is taxable. Such tax liability is not avoided if a deposit is made by, or required of the customer, to secure the re-delivery of the container.

52.1 Tangible personal property used to insure safe delivery of other tangible personal property intended to be sold ultimately at retail. Packing paper, lining paper (including paper used to line cars, boxes and crates), excelsior and blocks and like tangible personal property used to insure safe delivery of tangible personal property intended to be sold ultimately at retail, the title to which passes to the purchaser, is exempt from retail sales and use tax.

The gross receipts from the sale of like tangible personal property used in the performance of a service are taxable.

52.2 Labels, tags and nameplates. Labels, tags and nameplates when attached to tangible personal property subject to the retail sales tax shall be considered part of the container and all of the provisions of rule No. 52 shall apply thereto.

52.3 Paper plates, paper cups, paper dishes, paper napkins, paper and wooden spoons and forks, straws and butterchips. Where paper cups, plates, dishes, napkins, spoons, forks, straws, butterchips and wooden spoons and forks are sold with taxable tangible property and are expended by such use, then the sale of such property to retailers is considered a sale for resale and is not taxable under the retail sales or use tax laws.

Where the above-mentioned articles are sold in connection with service or for free distribution by retailers, separate and apart from a retail sale, then said articles will be deemed to be a retail sale and are taxable.

The purchase of placemats by retailers who sell meals, subjects the purchaser to either sales or use tax, depending upon the source of supply. [Amended November 30, 1964]

This rule is intended to implement section 422.42(3) and 423.1(1), Code of Iowa, 1962.

52.4 Containers—wholesale bakeries. Bakeries purchasing metal or wooden containers for use in delivering bread or other bakery products to retailers are considered to be the consumer of such containers unless title and possession passes to the retailer at time of delivery. If bakery retailers contend the title or possession passes to their retail customers on any containers used in delivering bakery products, proper showing must be made by the bakeries to support that contention. [Filed June 30, 1955, amended August 10, 1962]

53 Applies to sales tax only. Tangible personal property purchased for resale but incidentally consumed by the purchaser. Retailers engaged in the business of selling tangible personal property who take merchandise from stock for personal use, consumption or gift, must report and pay sales tax on such merchandise. Such retailers may consider all their wholesale purchases as being made for resale purposes, and shall be liable for the tax on such items as they themselves consume or give away. Such retailers must enter on their books the cost of all such property that they have removed from stock for personal consumption or gifts, and must pay the tax measured by two percent of the amount of the cost to them. Articles taken from stock should be reported on the regular retail sales tax return under item 1 "a". [Amended August 10, 1962]

54 Sales by employers to employees—employees' meals. Where an employer furnishes tangible personal property to employees without charge, or uses merchandise through gifts or consumption, the cost of all such merchandise must be included in item 1 "a" of the quarterly return with sales tax thus reported.

When an accurate record of meals consumed by employees, the family of the retailer and himself is not kept, the commission requires sales tax to be reported at the rate of five dollars per week per person. The total quarterly amount must be shown in item 1 "a" of the tax return. [Amended August 5, 1958]

55 Sales in interstate commerce—goods shipped from this state. When tangible personal property is sold within the state and the seller is obligated to deliver it to a point outside the state or to deliver it to a carrier or to the mails for transportation to a point without the state, the retail sales tax does not apply, provided the property is not returned to a point within this state. The most acceptable proof of transportation outside the state will be:

(a) A waybill or bill of lading made out to the seller's order calling for delivery; or

(b) An insurance or registry receipt issued by the United States postal department, or a post-office department's receipt; or

(c) A trip sheet signed by the seller's delivery agent and showing the signature and address of the person outside the state who received the delivered goods.

When tangible personal property is sold and delivered in this state to the buyer or his agent, the sales tax applies even though the buyer may subsequently transport that property out of the state. Sales tax also applies when personal property is sold in Iowa to a common carrier and then delivered by the purchasing carrier to a point outside of Iowa for use. [Amended August 10, 1962] [Attorney General September 9, 1960]

GOODS COMING INTO THIS STATE

When tangible personal property is purchased in interstate commerce for use or consumption in this state, where delivery is made in this state, and the seller is engaged in the business of selling such tangible personal property in this state for use or consumption, such sale is subject to the retail sales tax, regardless of the fact that the purchaser's order may specify that the goods are to be manufactured or procured outside this state and shipped directly from the point of origin to the purchaser. The seller is required to report all such transactions and to collect and remit to this state retail sales tax on all such sales.

If the above conditions are met, it is immaterial (1) that the contract of sale is closed by acceptance outside the state or (2) that the contract is made before the property is brought into the state.

Delivery is held to have taken place in this state (1) when physical possession of the tangible personal property is actually transferred to the buyer within this state, or (2) when the tangible personal property is placed in the mails or on board a carrier at a point outside the state (f. o. b. or otherwise) and directly to the buyer in this state. See rule No. 180.

55.1 Sales not considered as interstate commerce. When the contract to sell takes place within the state of Iowa (offer and acceptance) and the seller delivers the goods from a point outside of Iowa directly to the buyer in Iowa, the sale is deemed to be an intrastate sale and the seller's receipts therefrom subject to the retail sales tax, if the sale is at retail and not otherwise exempted.

Adoption of this rule is not considered by the commission as a change in its holding as to such transactions, but merely as a clarification of rule No. 55.

55.2 Certificate of out-of-state delivery. Taxpayers making sales of tangible personal property delivered out of state may use the following certificate in lieu of trip sheets. Where the certificate is used it must be made out at the time of the sale and is especially designed for use when delivery is made by truck.

CERTIFICATE OF OUT-OF-STATE DELIVERY

Salescheck: The salescheck must show quantity, description of articles and price.

The undersigned hereby certifies that he delivered the merchandise described to the out-of-state address shown on the salescheck number set forth below:

SALES CHECK NUMBER _____
 DATE OF DELIVERY _____
 NAME OF TRUCK LINE _____
 DRIVER'S SIGNATURE _____
 ICC PERMIT NO. _____

I hereby certify that I received the merchandise described on the above salescheck.
 Date Signed

56 Premiums and gifts. Persons who give away or donate tangible personal property are deemed to be (for tax purposes) the final users or consumers of such property.

Therefore, the gross receipts from the sale of tangible personal property to such persons for such purposes are subject to the retail sales tax.

Where tangible personal property is purchased tax-free for the purpose of resale in the regular course of business by a retailer and subsequently given away or donated by the retailer, the retailer shall include in his retail sales tax return under item 1 "a" at his cost price the value of such property.

When a retailer selling tangible personal property at retail in Iowa, the gross receipts from which are subject to the tax, furnishes with said property a premium at the time of the sale, it shall be considered that the premium is sold together with the tangible personal property and that the receipts from the property cover the sale of the premium. In such instances the retailer is considered purchasing the premium for the purpose of resale. However, where the retailer is engaged in selling tangible personal property at retail, the receipts from which are not subject to the tax, but who furnishes a premium with the property sold, the retailer, for tax purposes, is considered as consuming or using the premium furnished. [Amended August 5, 1958]

56.1 Gift certificates. Where gift certificates are sold by persons engaged exclusively in selling taxable tangible personal property, services or amusement the tax shall be added at the time the gift certificate is sold. No sales tax will then be added at the time the gift certificate is redeemed by the donee. [Amended August 5, 1958]

57 Owners or operators of buildings. Owners and operators of buildings who purchase materials, shelving, janitors' supplies, electric light bulbs and other articles, which are used by them in maintaining the building, are the users or consumers of the personal property so purchased and shall pay retail sales tax to the supplier from whom such articles are purchased.

Where owners or operators of buildings remeter and bill their tenants for electric current, gas or any other taxable service consumed by the tenants, such owners or operators may purchase the electric current, gas or other taxable service tax-free, for resale, in which case the said owners or operators must hold retail sales tax permits and are liable for the tax upon the gross receipts from the sale of such service. Where the building

owners or operators purchase all of the electric current, gas, and other services, for resale, and consume a portion thereof in the operation of the building, they shall be liable for the tax on the cost of the electric current or gas purchased for resale and later consumed. That portion consumed by the owner or operator shall be reported under Item 1 "a" on the retail sales tax return.

Where a building sells heat to other buildings or other persons and charges for such service as a sale of heat, then such transactions are taxable at the rate of two percent of the gross receipts from such sales.

Where heat is furnished to tenants as a service to them, incidental to the renting of the space in the same manner as janitor, elevator and cleaning services, then there would be no tax, as heat in that case is not sold as a separate service and is not billed separately. In any case where heat is sold separately and is billed to the tenant separately, then such services are taxable.

Buildings making the sales of heat are required to procure a retail sales tax permit and report and pay the tax quarterly.

58 Tangible personal property made to order. Where retailers, such as dry goods merchants or tailors, contract to fabricate items of tangible personal property, such as carpeting, curtains, drapes, tents, awnings, clothing, auto tops and the like, from materials available in stock or through placing orders for materials which have been selected by customers, the total receipts from the sale of such fabricated articles must be included in the gross receipts upon which the sales tax is computed. Such retailers may not deduct labor or service charges of fabrication or production notwithstanding that such charges may be separately billed to customers apart from charges for materials.

These cases should be distinguished from instances where repairmen perform labor or services in repairing or altering items of tangible personal property belonging to their customers, in which event the labor or service charges do not come within the provisions of either the sales or use tax law. To illustrate the tax status of the service charge, assume that a customer purchases a dress or article of ladies wearing apparel, and the title had passed to the customer, any subsequent charges made and segregated for alteration would be exempt from sales tax. [Amended August 10, 1962]

59 Applies to sales tax only. Operators of vending machines selling merchandise—operators of machines and devices for commercial amusement.

1. The retail sales tax law was amended to impose a tax, beginning July 1, 1947, of two percent of the gross receipts derived from the operation of all forms of amusement devices and commercial amusement enterprises, such as music boxes, weighing machines, pin-ball machines and other slot operated devices used

for commercial amusement purposes. Receipts from the sale of merchandise through vending machines is also subject to a tax of two percent.

2. Frequently persons who own vending machines, vending merchandise by coin operation or otherwise, as well as persons who own coin-operated amusement machines and devices place them on location throughout the state in places of business belonging to and operated by others, giving to the owner of the place of business a share of the receipts the device takes in for the privilege of operating the machine at that location. These persons are called operators.

3. The operator of machines and devices which are out on location as before described are retailers for the purpose of the retail sales tax law and are required to hold a retail sales tax permit and report the entire gross receipts received from the operation of such machines and devices and remit two percent tax thereon. The operator, who has machines out on locations belonging to others, shall hold one regular retail sales tax permit for his principal place of business, whether same is located in the state of Iowa or outside the state of Iowa, and shall file a quarterly return which will include all gross receipts from all such machines or devices operated by him in Iowa during the quarterly period covered by the return. The return form ST-50 shall be filed by said operator to which shall be attached and made a part thereof form ST-51A, upon which the operator shall list the following information:

a. The total number of units of each type of machine or device operated, together with the total receipts derived from each type.

4. The retail sales tax department will furnish to such type operator a sticker, form ST-103, for each unit operated in the state by the operator and said sticker shall be applied to each unit, reflecting the retail sales tax permit number of the operator, under which permit the sales tax on the receipts from the machine is reported and returned to the state. No device or machine or gadget operated for commercial amusement purposes shall be operated without said sticker ST-103 being attached thereto in a prominent place, indicating the sales tax permit number of the operator thereof.

5. Billiard and pool tables, shooting galleries and other similar undertakings which are ordinarily operated in a regular place of business owned and managed by the operator thereof would not come within the provisions of this rule with respect to holding one permit for the entire state or with respect to filing ST-51A as an addition to the regular retail sales tax return form ST-50. Likewise the provision with reference to the regular sales tax permit and form ST-51A would not apply to devices operating at fairs, circuses and carnivals which are temporarily within the state of Iowa. Concerning the latter see rule No. 15.10.

Any changes or modifications reflected herein from previous rulings of the commission in regard to this subject shall be effective as of January 1, 1951. [Amended August 5, 1958] Section 422.42

59.1 Inspection fee on weighing scales not a credit against sales tax due. Section 422.46, Code of Iowa, 1950, 1954, provides that where the state now imposes a special tax concerning the sale of tangible personal property, that the special tax shall be applied as a credit against the retail sales tax due as a result of the sale of such tangible personal property at retail in Iowa.

In 1947 the retail sales tax law was amended by an addition to section 422.43, under the provisions of which a tax of two percent was imposed upon the gross receipts derived from the operation of all forms of amusement devices and commercial amusement enterprises conducted within the state of Iowa and said tax covered all receipts from the operation of weighing machines as well as other items. The department of agriculture collects a three dollar per year fee as an inspection fee for inspecting weighing scales.

It is the commission's holding and ruling that the three dollars per year inspection fee paid on the inspection of such scales is not a credit against the retail sales tax due on the receipts from the operation of weighing scales, as is contemplated in section 422.46.

The 1947 amendment specifically and expressly taxed the receipts from the operation of weighing machines and further section 422.46 affords a credit only where tangible personal property is sold and a special tax is imposed by the state in connection with the sale of such tangible personal property.

60 Applies to sales tax only. Deposits or prepayments on purchase price. Where retailers accept from their customers prepayments or deposits representing part of the purchase price of merchandise, the possession of which is not to be delivered to the purchaser until the full amount of the purchase price shall have been paid, the time of the sale is determined by the terms of the sale and the intention of the parties.

If the buyer makes a deposit on the purchase price of specific goods which have been selected in a deliverable state, and the seller appropriates the specific goods for the purpose of future delivery to the buyer, title to the goods passes and the sale is consummated at the time the deposit is made. The prepayment or deposit must be included in the gross receipts on which the seller's tax is computed. If specific goods are neither selected by the buyer nor appropriated to the sale by the seller, title to the goods does not pass until the buyer selects specific goods and such goods are appropriated to the sale by the seller. In the latter case, the sale takes place when possession of the goods is delivered to the buyer. The seller must include in his gross receipts the total amount of the purchase price thereof.

61 Applies to sales tax only. Auctioneers—public auctions. Any person [as defined in section 422.42 (1)] who sells at retail through auctions is a retailer under the sales tax law and must hold a sales tax permit. Property sold at retail is taxable regardless of the ownership of such property. Property such as livestock sold for feeding purposes is exempt as a resale transaction, along with others that can be similarly classified.

Some retail establishments that operate through auctions are sale pavilions, community sales, furniture auctions and the like. [253 Iowa 994; 115 NW2d 178] [Amended August 10, 1962]

62 Applies to sales tax only. Transient or itinerant sellers. Persons not regularly engaged in selling at retail and not having a permanent place of business, but who are temporarily engaged in selling from trucks, portable roadside stands, concessionaires at state, county, district or local fairs, carnivals and the like, shall report and remit the tax on a nonpermit basis.

Transient or itinerant sellers may be required to post a bond if in the judgment of the commission it is deemed necessary and advisable to secure the collection of the tax imposed under Division IV of the sales tax law. A cash bond of not less than one hundred dollars or a surety bond of not less than five hundred dollars issued by a solvent surety company authorized to do business in Iowa, is acceptable. The amount and type of the bond shall be determined by the commission. [Filed August 19, 1954]

63 Applies to sales tax only. Peddlers and street vendors. Hawkers, peddlers and street vendors who do not have regularly established places of business are temporary retailers within the meaning of the law, and such persons are required to report and remit sales tax on a nonpermit basis. [Amendment filed August 19, 1954; August 10, 1962]

64 Repairmen engaged in altering or repairing property belonging to others. Persons engaged in the business of repairing or altering tangible personal property belonging to others are deemed to be rendering a service, the gross receipts from which are not subject to the retail sales tax. The repairman, however, is deemed to be the final user or consumer (for tax purposes) of all tangible personal property which he purchases for use in the rendition of such service, even though the title to the property used in the repair work is passed on to his customer.

A person who is exclusively engaged in repairing tangible personal property belonging to others need not hold a retail sales tax permit. Therefore, the gross receipts from the sale of tangible personal property to such repairman for such purpose would be subject to the retail sales tax.

If, however, a person engaged in repairing tangible personal property belonging to others

js also engaged in selling similar tangible personal property at retail in Iowa, such person must hold a retail sales tax permit. Those repairmen holding a retail sales tax permit, when purchasing tangible personal property, a part of which they will consume in their repair work and a part of which they will sell at retail, will be permitted to purchase all such property tax-free on the theory of resale by giving to their suppliers a certificate of resale showing their sales tax permit number.

The repairman holding a retail sales tax permit should then include under Item 1 "a" of his retail sales tax returns, at his purchase price, the value of the tangible personal property used or consumed by him in his repair work, to which amount should be added his receipts from his sales at retail in Iowa. [Amended August 10, 1962]

65 Insect or pest exterminators. Persons engaged in the business of exterminating insects, rodents and other pests, render services, the gross receipts from which are not taxable; however, the gross receipts of persons selling the disinfectants, chemicals and supplies to persons rendering such services, are taxable, except as follows:

If the exterminator is using chemicals or sprays in furnishing insect control to farmers or pest control (but not rodent control) to farmers as a part of agricultural production for market, then that portion so used is exempted from sales tax. [Amended August 10, 1962] [See rule no. 94.1(3)]

Section 422.42 (3)

65.1 Weed exterminators. Persons using tangible personal property for the extermination or destruction of weeds are the final users or consumers of tangible personal property used for such destruction. Sales tax should therefore, be charged on the gross receipts from the sale of weed exterminators of every kind and character, except as follows:

If the exterminator is using chemicals or other property in furnishing weed control service to farmers as a part of agricultural production for market, that part of such items are exempt from retail sales tax. [Amended August 10, 1962] [See rule no. 94.1 (3)]

Section 422.42 (3)

66 Furniture repairers and upholsterers. Persons engaged in repairing or reupholstering furniture belonging to others are deemed to be engaged in rendering service, the receipts from which are not subject to the sales tax. On the other hand, such repairmen are deemed to be the final users or consumers of all tangible personal property which they purchase for use in the rendition of such service. Being the final consumer, they should pay the sales tax to their Iowa suppliers when such materials are purchased in Iowa and should report the use tax directly to this commission when such materials are purchased from out-of-state sources, unless the out-of-state supplier is registered with the use tax

department and authorized to collect the use tax for the state, in which last instance the use tax should be paid to the registered supplier.

Persons who are exclusively engaged in repairing or reupholstering furniture belonging to others need not hold a retail sales tax permit, inasmuch as they do not collect any sales tax from their customers, but should anticipate that the tax is increasing their cost of material two percent when preparing the charge.

However, if the furniture repairman or upholsterer is also engaged in selling tangible personal property at retail in Iowa, then such persons shall procure a retail sales tax permit and report and remit two percent of their gross receipts from retail sales directly to the commission.

The person who repairs or upholsters furniture for the purpose of selling such furniture at retail is making sales at retail, the receipts from which are subject to sales tax.

67 Watch, clock and jewelry repair. Watch clock and jewelry repairmen are consumers of watch, clock and jewelry repair parts and materials such as crystals, winds, and chain links used in repairing watches, clocks and jewelry. They are, however, retailers of wrist watch straps, metal bands, watches, clocks, chains and other tangible personal property which they sell to customers in the regular course of business. [Amended August 10, 1962]

68 Furriers and fur repairers. Persons engaged in altering, remodeling, and repairing cloth, fur or other garments belonging to others are deemed to be engaged in rendering a service, the receipts from which are not subject to the retail sales tax.

Such repairman is deemed to be the final user or consumer of all tangible personal property which he purchases for use in completing such services.

Therefore, persons selling to such repairmen tangible personal property for such purposes are making sales at retail, the receipts from which are subject to the retail sales tax.

However, if the repairman, in addition to rendering such services, is also engaged in selling tangible personal property at retail, such repairman is required to hold a retail sales tax permit and remit to the commission two percent of his gross receipts from such sales.

69 Shoe repairers. Persons engaged in the business of repairing shoes render a service. They are purchasers for use or consumption of tangible personal property (except taps and rubber heels) used by them incidentally in the rendering of such service. Consequently, sales of leather, including strips, bends and other findings to shoe repairers for use in connection with the rendering of such service, are sales at retail and are taxable.

Taps and rubber heels are purchased by shoe repairers for resale and the gross receipts

from sales by them at retail of such articles are subject to the sales tax notwithstanding the fact that such taps or rubber heels are attached to the shoes of their customers.

Taps are defined as leather or composition half soles which previous to the time of purchase by the shoe repairer have been cut to half sole shape and do not include strips, bends, or other sole materials which may, subsequent to purchase, be cut and used for sole purposes.

Furthermore, the sale by shoe repairers of all tangible personal property not directly used in connection with their repair services, but sold for use or consumption, represents taxable sales at retail. Therefore, shoe repairers are retailers of taps, rubber heels, shoes, polishes, laces and other such property.

Gross receipts, for the purpose of this rule, on items other than those identified in the preceding paragraph will be considered as being an amount equal to the cost of such other items plus a markup of forty percent. Items so identified may be purchased tax free from the suppliers with the repairers including the gross receipts from the sale of same in their sales tax returns. [Amended August 10, 1962] [See 225 Iowa 103]

70 Harness and mattress repairers. Persons engaged in repairing harnesses or mattresses belonging to others are rendering a service, the receipts from which are not subject to the retail sales tax. Persons solely engaged in such repair services are not required to hold a retail sales tax permit, inasmuch as they do not collect any sales tax from their customers.

On the other hand, such repairmen are deemed to be the final users or consumers of the tangible personal property which they purchase for use in the rendition of such services.

Therefore, persons selling to such repairmen tangible personal property for their use in such services are making sales at retail, the receipts from which are subject to the retail sales tax.

However, if the repairman, in addition to rendering such services, is also engaged in selling tangible personal property at retail, such repairman is required to hold a retail sales tax permit and remit to the commission two percent of his receipts from such sales.

71 Applies to sales tax only. Bookbinders, paper cutters, etc. Persons engaged in the business of binding books, magazines or other printed matter belonging to other persons are deemed to render services, receipts from which do not come within the purview of the sales tax law. Sales of cloth, leather, cardboard, glue, thread or other such items of tangible personal property, to bookbinders for use in performing such services are sales at retail, and the sellers must collect and remit the tax on such sales.

Where a bookbinder binds his own books,

magazines or printed matter and sells the finished products to users or consumers, or makes and sells at retail loose-leaf or detachable binders, he must collect and remit tax with respect to the entire receipts from such sale.

Persons engaging in the business of paper-cutting, folding, gathering, padding, or punching circulars, office forms or other printed matter belonging to other persons, are deemed to be rendering services, and do not come within the provisions of the law. Sales of tangible personal property to such persons for use or consumption in the performance of these services constitute sales at retail and are taxable.

72 Printers, mimeographers and multi-graphers. Printers, mimeographers, multi-graphers and the like, are engaged in the business of processing personal property, and their sales of printed or mimeographed matter, such as books, letterheads, bills, envelopes, advertising circulars and the like to purchasers who either use or consume them, lease them, or distribute them free of charge, but do not sell them, are sales at retail, the receipts from which are taxable.

Such persons may not deduct from the selling price of such property the charges for labor or service rendered in its production, even though the same may be billed to the customer separate from the charge for the stock, except where a charge for addressing, folding enclosing and sealing is billed separately to the customer.

On commercial printing involving use of U. S. postal cards or stamped envelopes purchased by the printer, etc., the tax must be collected on the basis of the selling price of the job, less the amount of postage involved.

No tax arises from the service of typesetting performed by a printer, where title to the metal does not pass to the consumer.

See rule 25.7 for electrotypes, type, zinc etchings, half-tones, stereotype, color process plates and wood mounts.

73 Abstracts and law briefs. Persons engaged in the business of furnishing abstracts of title are rendering a service to their customers and their gross receipts from this source are not taxable. Likewise, the gross receipts from the furnishing of, or sale of, law briefs, whether typewritten or printed, are considered sales of service and not subject to the tax.

The sale of paper or other materials used in the making up of title abstracts or law briefs to abstract companies or those furnishing law briefs, are sales to purchasers for use or consumption, and the sellers of such paper or supplies are liable for the tax upon their gross receipts from such sales.

This rule applies only to abstracts of title, abstracts of record and briefs ordered specially prepared for some certain person. It does not apply to the sale of printed briefs or com-

mercial sales of printed matter, whether by subscription, sale or contract. Such sales are taxable.

74 Tennis racket restringing and repairing. Persons engaged in repairing and restringing tennis rackets are retailers of the strings and other tangible personal property furnished, and tax applies to the retail selling price thereof. If a lump sum charge is made for materials and labor, fifty percent thereof is regarded as the retail selling price of the materials furnished. [Amended August 10, 1962]

75 Clay pigeons. Gun clubs furnishing clay pigeons to their members are regarded as performing a service even though the charges for the services are based on the number of clay pigeons furnished. Consequently, the receipts from the sale of the clay pigeons to the clubs are taxable.

Where a gun club or other person furnishes the service or facilities for trap or skeet shooting to the general public or to persons not members of a regularly organized and established club, the furnishing of such facilities shall be deemed to be operating an amusement device, the gross receipts from which are taxable under the provisions of the retail sales tax law.

Where a gun club makes retail sales to their members or other consumers, tax is imposed on the gross receipts. [Amended August 10, 1963]

76 Advertising service. Charges for advertising in newspapers, magazines or other publications are not taxable. Likewise, charges made by advertising agencies for preparing and placing such advertising are charges for services and are not taxable.

The tax applies, however, to gross receipts from sales of tangible personal property to advertisers or advertising agencies for use or consumption in preparing advertising, such as paper, ink, paint, tools, office supplies and art work purchased from independent artists, engravers, charges for making metal plates, electrotypers' charges for making electrotypes or matrices and printers' charges for production of pamphlets, booklets, brochures and other printed materials.

Advertising agents engaged in producing drawings for advertising purposes are regarded as the consumers of the materials used in the performance of such services where the title remains with the agency. Sales to them are retail sales, subject to the tax. Charges made by such advertising agents are not taxable. [249 Iowa 1207]

This rule applies to advertising agencies who solicit newspapers, magazines and other periodicals. [Amended August 10, 1963]

77 Newspapers, magazines, trade journals, etc. Publishers of newspapers are deemed to be rendering a service to their subscribers and the gross receipts from the sale of newspapers to the public are therefore not taxable. The sales of magazines, trade journals, and other

periodicals when sold to consumers or users are sales at retail and the gross receipts from such sales are taxable.

Advertising which appears in newspapers, magazines, trade journals, and other periodicals, is not subject to sales tax. Where trade publications, advertising pamphlets or circulars, and the like are distributed free by the publisher, the publisher is liable for sales tax on the cost of the distributed material. [Amended August 10, 1962] [See rule no. 134] Section 422.42 (3)

78 Tire repairing and vulcanizing. Persons engaged in the business of repairing or vulcanizing tires and tubes belonging to others render services, the receipts from which are not subject to the retail sales tax. However, such persons are deemed to be (for tax purposes) the final users or consumers of all tangible personal property which they purchase for use in the rendition of such services. Such persons who are exclusively engaged in rendering such services are not required to hold a retail sales tax permit, inasmuch as they do not collect any sales tax, as such, from their customers.

Therefore, persons selling tangible personal property to such repairmen for use in rendering such services are making sales at retail, the receipts from which are subject to the retail sales tax.

If, however, the repairman in addition to rendering such services, also sells tangible personal property at retail in Iowa, then he must hold a retail sales tax permit and remit to the commission.

79 Retreading and recapping tires. Persons engaged in the business of retreading or recapping tires belonging to others are rendering services, the receipts from which are not subject to the retail sales tax. Such repairmen are deemed to be the final users or consumers of all tangible personal property which they purchase for use in rendering such services.

Therefore, persons selling tangible personal property to such repairmen for use in the rendition of such services are making sales at retail, the receipts from which are subject to the sales tax. Tax applies to the sale of retreaded or recapped tires which sale price includes any amount allowed for the customer's old tires or other merchandise traded-in. [Amended August 10, 1962]

79.1 Tire mileage contracts. Some tire companies pursuant to a "tire mileage contract" agree to furnish satisfactory tire equipment to their customers at a stipulated amount per mile of motor vehicle operation, the tire companies retaining title to the tires and possessing authority to remove tires and replace them with new or used ones, to move tires from wheel to wheel and to remove tires for inspection or repair. The receipts from such transactions in Iowa are subject to retail sales tax.

80 Rewinding motors. Persons engaged in the business of rewinding motors or transformers belonging to others are deemed to be engaged in rendering a service, the receipts from which are not subject to the retail sales tax. However, the repairman is deemed to be (for tax purposes) the final user or consumer of all tangible personal property which he purchases for use in the rendition of such services.

A person who is exclusively engaged in such repair service is not required to hold a retail sales tax permit.

However, if such person, in addition to rendering such service, is also engaged in selling tangible personal property at retail in Iowa, then such person should hold a retail sales tax permit and report to the commission two percent of his receipts derived from such retail sales in Iowa.

81 Automobile washing and chassis lubrication. Automobile washing and greasing jobs are considered services, the receipts from which are not subject to sales tax.

Grease, lubricants, or other articles consumed incidentally in rendering such services are purchased for final consumption and are subject to the tax as retail sales.

Where grease, lubricants or other articles are sold separate and apart from chassis lubrication, and in cases where the customer is billed separately for greases or lubricants not included in the lump sum price of chassis lubrication, the tax applies upon the gross receipts from such sales.

82 Laundries, dry cleaners, rug cleaners, etc. Persons engaged in the operation of laundries, dry cleaning establishments, rug cleaning establishments and like services, render services, the receipts of which are not subject to the retail sales tax.

On the other hand, such groups are deemed to be (for tax purposes) the final users or consumers of all tangible personal property which they purchase for use in the rendition of such services.

Therefore, persons selling tangible personal property to such groups are making sales at retail, the receipts from which are subject to the retail sales tax.

83 Blacksmith and machine shops and similar activities. Blacksmiths and machine shop operators are generally engaged in repairing tangible personal property belonging to others with the receipts for their work, as such, exempt from sales tax as a service. All personal property acquired by such operators for this "service" is subject to sales or use tax.

When a blacksmith or machine shop operator also fabricates finished articles from raw materials and sells such articles at retail, sales tax applies on the total charge, which includes the fabrication labor. A sales tax permit must be held for selling at retail with tax remitted on the sales plus any items consumed in service work, which were purchased tax

exempt because of their dual use by such blacksmiths and machine shop operators. [Amended August 5, 1958]

84 Automobile refinishers and painters. Tax does not apply to charges for repainting or refinishing used articles. Tax, however, does apply on sales to the refinisher of paint and other materials used in his service work. [Amended August 5, 1958; August 10, 1962]

85 Painters and paperhangers. Painters, paperhangers, refinishers, floor waxers, wall-paper cleaners, interior decorators and those people rendering renovation services, are primarily rendering a service not covered by the Act, and receipts from their charges are not taxable. Sales of wallpaper, paint, varnish, waxes, polishes, cleaning fluids, and materials used by these persons in the performance of rendering their services constitute sales to these persons for use or consumption, the gross receipts from which are taxable.

Painters and paperhangers engaged in making retail sales are required to hold a sales tax permit with the gross receipts from their sales subject to tax. [Amended August 10, 1962]

Section 422.53

86 Signs and sign painters. Persons engaged in the business of painting signs on billboards, buildings or other property belonging to others render service which is not taxable. Sales of paint, brushes, and other tangible personal property to sign painters for use by them are sales at retail, subject to the tax.

Where a sign painter paints a sign on his own personal property and sells the finished product, he makes a sale at retail which is subject to the sales tax without any deduction for cost of materials or labor.

86.1 The tax liability of artists fulfilling orders and the preparation of commercial drawings, sketches and paintings on special order for commercial use. Where retailers or commercial houses place special orders with artists for use in making cuts or other advertising matter, the artists are rendering services and not making sales at retail in the preparation of such drawings.

This rule is strictly limited to artists' work hereinbefore described and does not include signs, sign paintings, placards and other paintings made and offered for sale in the usual course of retail business or other painting and art work. [Amended August 10, 1962]

Section 422.42(5)

87 Sales of signs at retail. Persons engaged in selling to users or consumers illuminated signs, bulletins or other stationary signs, whether manufactured by themselves or by others, are selling tangible personal property at retail, the receipts from which are taxable, even where the purchase price of the sign includes a charge for maintenance or repair service in addition to the charge for the sign.

Charges for services rendered subsequent to

the sale of a sign, which are billed separately, are not taxable, but all tangible personal property used in making such repairs is taxable.

88 Motor vehicle repair shops and garages. The gross receipts from sales of tangible personal property to purchasers for use, either separately or in connection with motor vehicle repair work, such as automobile parts, accessories, tires, batteries, oils, and like articles, are taxable. Where the parts or accessories are used in a repair job, and are billed to the customer separate and apart from the charge for labor or services, the tax will be computed on the retail selling price of the property so used, provided the repairman keeps books so as to show separate charges for personal property sold and for labor or services performed.

Personal property so billed and taxed to the customer may be purchased tax-free by the repairman, if he is holder of a retail sales tax permit.

89 Oculists, ophthalmologists, optometrists and opticians. Oculists, ophthalmologists, optometrists and opticians render professional services with their receipts exempt from sales tax. They are, however, the consumers of ophthalmic materials including eyeglasses, contact lenses, frames and lenses used or furnished in the performance of this service work. Tax, therefore, applies on all items acquired for this work.

If oculists, ophthalmologists, optometrists or opticians sell tangible personal property in addition to rendering their professional services, they must hold a retail sales tax permit and report all sales tax due from their retail sales. [Amended August 10, 1962]

Section 422.42 (5)

90 Physicians and surgeons. Physicians and surgeons generally render professional services and the receipts for such services are not subject to retail sales tax. Any tangible personal property acquired by physicians or surgeons for furnishing professional services to their patients is subject to either sales or use tax, depending upon whether acquisition of the property was from Iowa retailers or out-of-state suppliers.

There are numerous instances whereby physicians and surgeons aside from rendering professional services as provided above, dispense drugs, medicines, and other items to their patients and others. Transactions of this kind classify the dispensers (the physicians and surgeons) as "retailers" under the sales tax law and subject their sales (drugs and medicines or other items) to sales tax. A sales tax permit must be held for the reporting of the tax on the respective sales.

Where the physicians or surgeons consume the same type of personal property that they also sell at retail, all such property may be purchased tax exempt with tax reported on the consumed portion under item 1 "a" of the

quarterly tax report. [Amended August 10, 1962]

Section 422.42 (5)

91 Hospitals, infirmaries and sanatoriums. Hospitals, infirmaries, sanatoriums and like institutions are engaged primarily in the business of rendering services. They are not liable for sales tax with respect to their gross receipts from meals, bandages, dressings, X-ray, photographs, or other tangible personal property, where such items of tangible personal property are used in the rendering of hospital service. This is true, irrespective of whether or not such tangible items are billed separately to their patients. Hospitals, infirmaries and sanatoriums are deemed to be the purchasers for use or consumption of such tangible personal property that is used in furnishing services. Sales tax should, therefore, be remitted to the Iowa retailers on that property when acquired, with use tax the proper medium with out-of-state suppliers.

There are numerous instances whereby hospitals, infirmaries, sanatoriums and like institutions dispense drugs and medicines to their patients and others. Transactions of this kind classify the dispensers (hospitals, infirmaries, sanatoriums, and like institutions) as "retailers" under the sales tax law and subject their sales (drugs, and medicines) to sales tax. A sales tax permit must be held for the reporting of the tax on the respective sales.

Where the hospitals, infirmaries, sanatoriums and like institutions consume the same type of personal property that they also sell at retail, all such property may be purchased tax exempt with tax reported on the consumed portion under Item 1 "a" of the quarterly tax report. [Amended August 10, 1962]

Section 422.42(5)

91.1 Hospitals operating nurses training schools. Hospitals are normally the persons who conduct nurses training schools for the training of student nurses entering the nursing profession.

Where hospitals purchase tangible personal property, the title to which is passed on to the student nurses in consideration of the nurses' services rendered to the hospital in connection with the training course, no tax would be due to the supplier selling to the hospital such items and the hospital would owe no tax as a result of this transfer from the hospital to the student nurse under the provisions of subsection 4 of section 422.45, Code of Iowa, which is a part of the retail sales tax law.

Likewise the hospital would owe no use tax when purchasing tangible personal property for the purpose of transfer to the student nurses.

Items such as nurses' uniforms, the title to which passes to the student nurses, food which is served to the student nurses in the form of meals, as well as books, the title to which passes to the nurses, would not be subject to tax. However, reference books and

other items of tangible personal property, the title to which remains in the hospital, but which the student nurses are permitted to use, would not be exempt from either sales or use tax.

92 Veterinarians. Purchases of drugs, medicines, bandages, dressings, serums, tonics, and the like, which are used in treating livestock raised as a part of agricultural production are exempt from sales tax. Where these same items are used in the treating of animals maintained as pets for hobby purposes, sales tax is due as the statutory exemption is not met.

If veterinarians engage in retail sales in addition to furnishing professional services, they must account for sales tax on the gross receipts from such sales. [Amended August 10, 1962]

Section 422.42(3)

93 Barber and beauty shops. Barbers and beauty shop operators primarily render personal services, not subject to the sales tax. Cosmetics, tonics, lotions, shaving soaps and other materials used or consumed in rendering such services are purchased for use or consumption, and the sellers thereof must collect and remit the tax thereon, as well as upon sales to them of tools, and equipment used or consumed by them. Use tax is likewise due where merchandise, tools and equipment are acquired outside of Iowa. [Amended August 10, 1962]

94 Sales by farmers. Sales of grain, livestock, or any other farm, garden, or horticultural products by the producer thereof, ordinarily constitute sales for resale or for processing and as such are not subject to the tax.

Where farmers sell eggs, poultry, fruit, vegetables, dairy products to ultimate consumers or users, they must hold a sales tax permit and report sales tax on the gross receipts from their sales. [Amended August 10, 1962]

Section 422.42 (5)

94.1 Sales to farmers and others. (Exemption of Certain Products Related to Agricultural Production)

1. Feeds sold for use in feeding livestock or poultry for market and, effective December 27, 1956, antibiotics administered as an additive to feed or drinking water for livestock or poultry produced for market are not subject to the sales or use tax.

2. If purchased on or after July 4, 1957, materials, excluding tools and equipment, to be used in disease control, weed control, insect control or health promotion of plants or livestock produced as a part of agricultural production for market and tangible personal property consumed in implements of husbandry engaged in agricultural production are exempted from the sales tax. Such items continue to be subject to the use tax. The term "tangible personal property consumed in implements of husbandry", as used above, is construed to include only motor vehicle fuel

used in farm tractors or used in operating farm equipment drawn or propelled by farm tractors engaged in agricultural production.

3. Sales of control materials, but not tools or equipment, to persons engaged in the business of exterminating insects or weeds, but not rodents, when used as a part of agricultural production for market are exempted from sales tax the same as sales made directly to farmers for the same purposes.

4. Sales of health promotion materials, but not tools or equipment, to persons engaged in health promotion of plants or livestock, when used as a part of agricultural production for market are exempted from sales tax the same as sales made directly to farmers for the same purposes. [Filed August 5, 1958]

95 Filling stations, sales of gasoline and other petroleum products

A "person" who operates a filling station is making retail sales of tangible personal property and is also consuming other personal property in rendering services to his customers. Many filling stations sell spark plugs, radiator caps, batteries, tires, motor oil, transmission and differential greases, beverages, tobacco products, etc., at retail and sales tax is applicable on the respective gross receipts.

All items consumed by the filling station operators in rendering services to their customers are subject to either sales or use tax when acquired. Some of the items in this group are sponges, soap, chamois, polish, wax, tire patches, chassis lubricants, water, tools, service equipment and any other commodities essential to service work.

Sales tax does not apply on gasoline sold by a filling station as a credit provision is contained in section 422.46 of the sales tax law for the special tax imposed by the state. [Amended August 5, 1958]

95.1 Filling of tractor tires with calcium chloride. The sale of calcium chloride for filling tractor tires is taxable. Where segregation is made as to the labor of installing calcium chloride within the tractor tires, no sales tax is due on the labor charge. If segregation is not made, sales tax is due on the total charge. [Amended August 10, 1962]

Section 422.42 (6)

96 Florists and nurserymen. Florists and nurserymen selling flowers, plants, trees, shrubs, grass and seeds at retail are liable for tax on their gross sales, notwithstanding the fact that such merchandise shall have been produced by the seller. This rule applies regardless of whether such articles are sold from a store, a curb, a market, a greenhouse, a farm, or any other place.

Florists are engaged in the business of selling tangible personal property at retail and are liable for payment of the sales tax, measured by receipts from sales of flowers, wreaths, bouquets, potted plants, and other items of tangible personal property.

Where a nurseryman or florist sells shrub-

bery, young trees and similar items, and as a part of the transaction transplants them in the land of the purchaser for a lump sum or flat rate, the transaction is considered a construction contract with the nurseryman or florist the consumer of all personal property expended. [Amendment filed August 19, 1954]

Where florists conduct transactions through a florists' telegraphic delivery association, the following rules will apply in the computation of tax liability:

1. On all orders taken by an Iowa florist and telegraphed to a second florist in Iowa for delivery in the state, the sending florist will be held liable for tax measured by two percent of his receipts from the total amount collected from the customer, except cost of telegram where separate charge is made therefor.

2. In cases where an Iowa florist receives an order pursuant to which he gives telegraphic instructions to a second florist located outside Iowa for delivery of flowers to a point outside Iowa, tax will likewise be owing with respect to the total receipts of the sending florist from the customer who placed the order.

3. In cases where Iowa florists receive telegraphic instructions from other florists located either within or outside of Iowa for the delivery of flowers, the receiving florist will not be held liable for tax with respect to any receipts which he may realize from the transaction. In this instance, if the order originated in Iowa the tax will be due from, and payable by, the Iowa florist who first received the order and gave telegraphic instructions to the second florist.

Fuel used by greenhouses and others for the purpose of growing of plants is not deemed to be processing and is, therefore, not exempted from the retail sales tax. Again this holding of the commission is based on the case of Kennedy v. Iowa Board of Assessment and Review, 224 Iowa 405, said case holding that the growing of plants is not a processing activity.

96.1 Sod and dirt. The sale of sod and dirt by a person engaged in such business is taxable in the same manner as the sale of other tangible personal property. Where a person selling sod contracts to sod a given area for a fixed or lump sum fee, then such contractor shall be governed by the rules relating to lump sum contractors performing contracts for the improvement of real property. Persons selling sod or dirt at retail are required to procure a retail sales tax permit. [Amended August 10, 1962] [253 Iowa 994]

97 Hatcheries. When egg-type cockerel chicks, broiler chicks and turkey poults are sold for consumption, sales tax applies on the gross receipts from such sales.

Where pullets and poults are sold for production purposes, the receipts from such sales are exempt from sales tax. This exemption also applies to hatcheries where they hatch pullet chicks and then raise them until sixteen to

twenty weeks of age when they are sold as started pullets.

Services furnished by hatcheries which are exempt from sales tax include the custom hatching of eggs and the custom brooding of chicks. [Amended August 10, 1962]

Section 422.42(3)

98 Seeds, plants, bulbs and like property. Seeds, roots, plants, bulbs, shrubbery and like property may be sold tax-free by retailers when such sales are made to one engaged in the business of operating a nursery or a commercial garden. Where a sale is made to a final consumer, it is taxable. The tax liability depends upon the use to which the seeds and other items are to be put, and not on the kind or variety of the same.

This rule applies also to seeds, roots, plants, bulbs, and like personal property purchased by farmers engaged in regular agriculture, in other words, all seeds purchased by farmers for commercial planting are exempt from the retail tax.

98.1 Materials used for seed inoculations. All forms of inoculation, whether for promotion of better growth and healthier plants or for prevention or cure of mildew of plants, or disease of seeds and bulbs, are intended for the same general purpose; therefore, no retail sales tax is imposed on any material used for inoculation or for any of the purposes above-mentioned.

98.2 Plant hormones. The gross receipts from the sale of plant hormones are exempted from the retail sales tax.

See rule No. 25.4, commercial fertilizer.

99 Dairy products sold by co-operatives to members or patrons. No sales tax exemption shall be allowed on gross receipts from the sale of dairy products to customers or patrons of creameries. Gross receipts from stockholders or members of co-operative creameries or creamery associations, resulting from the exchange of butter or other dairy products for cream supplied by said stockholders or members shall be included in the receipts on which retail sales tax is computed. Gross receipts from the sale or exchange of buttermilk for feeding livestock intended for sale are not taxable.

100 Rural electrification associations. Rural electrical co-operative associations are required to collect and remit the sales tax on sales of electric energy to domestic, commercial, or industrial consumers. They should execute resale certificates to the companies from whom they purchase electric current for resale and obtain certificates from consumers to whom they sell for processing.

Associations are required to collect and remit the sales tax on all sales by them of appliances to users or consumers and to pay the retail sales tax on the purchase of all supplies and equipment which they do not sell, except as otherwise provided in these rules.

101 Sales of fertilizers. The word "fertilizer" means a commodity containing one or more substances to increase the available plant food content of the soil and as a result becomes a part of the products grown therein for the purpose of producing for sale or aiding in such production for sale. Sales of commercial fertilizers are not subject to the tax.

See ruling of attorney general of March 28, 1945.

102 Sales of livestock and poultry feeds. Sales of feed for poultry or livestock are not taxable. Vitamins and minerals are considered and defined by the dictionary as a food or a food supplement. Antibiotics when to be administered as an additive to feed or drinking water and vitamins and minerals sold for livestock and poultry are exempted from the sales tax. Vitamins sold for human consumption are not exempted. [Amended August 5, 1958]

(See Rule No. 94.1(1)—Sales to Farmers)

102.1 Sales of pet and bird feeds. Sales of pet and bird feeds for dogs, cats and other pets are not exempt from the retail sales tax except where such animals are raised for sale by a person regularly engaged in raising dogs and pets and who has at the time the exemption is claimed, procured a retail sales tax permit for the sale of such pets.

102.2 Sales of bedding and litter. The sale of bedding and poultry litter, except straw, is not exempted from the retail sales tax. Straw, because of its dual purpose, shall be construed as feed and governed by the provisions of rule No. 102.

102.3 Sales of pets. The sale of dogs, cats, birds and the like sold as pets are subject to sales tax. The retailer who sells such pets must procure a sales tax permit and report all sales tax on the gross receipts therefrom.

The sale of horses is subject to sales tax. The term "horse" is here used in its generic sense and includes all variations of equestrian quadruped whether a pony, mule, gelding, stallion, mare, filly, jackass, or ass, regardless of the purpose for which the sale is made, except that sales made to a bonafide dealer for the purpose of resale are nontaxable. Any dealer making retail sales of "horses," as herein used, must procure a sales tax permit and report all sales and remit the sales tax on the gross receipts therefrom.

A "dealer" may be defined as one who engages in the purchase and sale, or sale, of horses as defined herein, or one who is required to be registered as a dealer under the federal packers and stockyard Act as amended.

There is further excluded from the purview of this rule, the sale of any "horse" for the purpose of "processing" as defined by section 422.42(3), Code of Iowa.

Proof of sale for processing may be had by production of a slaughter affidavit issued on forms provided by and under authority of the

state secretary of agriculture in pursuance of his duties under the law. [Filed August 10, 1962; amended November 30, 1964]

This rule is intended to implement section 422.43, Code of Iowa. (This rule was not approved by the Department Rules Review Committee)

103 Meal tickets, coupon books and merchandise cards. Where meal tickets, coupon books or merchandise cards are sold by persons engaged exclusively in selling taxable commodities or services, the tax shall be levied at the time the meal ticket, coupon books or merchandise cards are sold to the customers. No tax will then be added at the time of actual purchase of merchandise or services. For example, a person purchasing a meal ticket entitling him to \$5.50 worth of meals, and paying \$5.00 therefor, will pay ten cents tax at the time he purchases the ticket. For each meal subsequently consumed, the restaurant, cafe, cafeteria, etc., will punch out of the card the net price of the meal exclusive of the tax.

104 Hotels, lodging and boarding houses. The gross receipts of hotels and lodging houses from charges for rooms and other hotel services are not taxable. Where a hotel or lodging house provides both rooms and meals to the public, the tax shall apply to the entire charge, except that if the charge for meals and drinks is segregated, the tax will apply only to the receipts from their sale.

Sales to hotels or lodging houses of food supplies which become component parts of taxable meals served by them are not subject to the tax.

Where hotels, lodging and rooming houses operate amusements or amusement devices or coin operated machines, the gross receipts therefrom shall be included in the gross receipts from sales on which the tax is computed. [Amendment filed August 19, 1954]

105 Railway dining cars. The sale of meals or other tangible personal property on railway trains and dining cars being operated in or through the state of Iowa, constitutes sales at retail, the gross receipts from which are taxable, provided such meals or other tangible personal property are ordered within the boundaries of the state. It is immaterial whether or not such meals or other property be consumed within the state.

Where beer, cigarettes, cigarette papers or other articles of tangible personal property which have been purchased in a state other than Iowa for resale in dining cars, such articles of tangible personal property are to be included in the gross receipts on which sales tax is computed. [Amended November 30, 1964]

105.1 Applies to sales tax only. **Sales on trains.** Persons selling tangible personal property on trains other than in railway dining cars are making retail sales within the meaning of the law and are required to procure a

retail sales tax permit. [Amendment filed August 19, 1954]

106 Student fraternities and sororities. Student fraternities and sororities are not considered to be engaged in the business of selling tangible personal property at retail within the meaning of the sales tax Act, when they provide their members with meals and lodging, for which a flat rate or lump sum is charged. Sellers of foods, beverages and other tangible personal property to such organizations for use in the preparation of meals are, in such instances, making sales at retail and will be held liable for the tax.

However, where student fraternities or sororities engage in the business of serving meals to persons other than members, for which separate charges are made, or where they operate canteens through which tangible personal property is sold at retail, as to such sales they become liable for the tax.

Where student fraternities or sororities do not provide their own meals but these are provided by caterers, concessionaires or other persons, such caterers, concessionaires or other persons will be held liable for the tax with respect to their receipts from meals so furnished. A similar liability attaches to persons engaged in the business of operating boarding houses, whether for students or other persons.

107 Applies to sales tax only. Truckers engaged in retail business. Truckers or haulers who sell tangible personal property to ultimate users or consumers, such as feed, ice, building supplies and other items, are taxable on the gross receipts from such sales. It is immaterial whether sales are few and infrequently made, the fact that the trucker makes sales is evidence that he is engaged in retail business in direct competition with established merchants. Therefore, when truckers make sales to ultimate users or consumers, they must collect and remit the tax to this commission. (Coal truckers, see rule No. 109; foreign truckers, see rule No. 110.)

108 Delivery charges on purchase of coal, fuel and other merchandise by retailers. The transportation or delivery charges from any source of supply, such as a mine or other points, to a retailer's place of business, are not a basis for a deduction from gross receipts when such tangible personal property is subsequently sold at retail.

108.1 Delivery charges on sale of coal, fuel and other merchandise. [Rescinded August 10, 1962; see rule 41]

109 Applies to sales tax only. Iowa mine operators selling to coal truckers and haulers. Operators of mines in Iowa are deemed retailers of coal and subject to the collection and remittance of the sales tax in the following cases:

1. On all sales or deliveries to truckers and haulers who do not have an established place of business.

2. Where a trucker or hauler procures coal at the mine for delivery to one by whom he is employed to procure and deliver the coal.

It is immaterial in either case whether the mine operator received payment for the coal from the user or consumer or from the trucker or hauler, as he is deemed to be a retailer of tangible personal property for use or consumption. For nonresident truckers, see rule No. 110.

Section 422.42

110 Applies to sales tax only. Foreign truckers selling at retail in Iowa. Foreign truckers or persons engaged in selling tangible personal property at retail in Iowa by means of hauling said property into the state with motor vehicles bearing foreign license plates, are required to report and remit sales tax on a nonpermit basis. If, in the judgment of the commission, it is deemed necessary and advisable in order to secure the collection of this tax, the seller shall be required to post either a cash bond of not less than one hundred dollars, or a surety bond of not less than five hundred dollars, issued by a solvent surety company authorized to do business in Iowa. The type of the bond to be determined by the commission. [Filed August 19, 1954]

111 Applies to sales tax only. Admissions tax. The tax is imposed upon the gross receipts from the sale of admissions, by ticket or otherwise (whether by single ticket or by season or subscription tickets) to places at which amusement, entertainment, or recreation is provided. The term admission does not include regular dues paid which entitle one to usual club or similar organization privileges even though one of the privileges is the right to participate. But where the chief or sole privilege of a so-called membership is a right to admission to certain particular performances or to some place for a definite number of occasions, the amount paid for such membership is taxable. The liability for collection and payment of the tax rests upon the one who charges and collects for the admissions. Where theaters or other places of public amusement operate cigar stores, soda fountains, candy stores, and such concessions selling tangible personal property, they incur liability and must hold retail sales tax permits and collect and remit the tax. Complimentary tickets shall be taxable on the regular admission charge of a ticket for a like seat.

The charge for booth reservations is in the nature of an admission to the particular booth in the same manner that a reserved seat is a special admission to a particular place in a circus, theater or like place of amusement. For the reason stated, retail sales tax must be computed on the gross receipts for admission to places of amusement including the amount collected for booth reservation.

The operation of a checkroom is a service. It is in no manner an admission to any amusement or athletic event. Therefore, the gross

receipts from the operation of coat or hat checkrooms should not be included in the gross receipts on which retail sales tax is computed.

Membership fees should not be included in the gross receipts on which the amusement tax is computed, where the organization is a legitimate one and membership fees are bona fide. However, on purely commercial golf courses or like amusements where the membership fee is nothing more or less than a season ticket, then the receipts from the so-called membership fees shall be included in the gross on which tax is computed.

111.1 Amusements. The gross receipts from amusements of every kind and character operated for profit, and the gross receipts from games of every kind and character operated for profit or gain are taxable under the provisions of section 422.43.

The tax applies to both legal and illegal amusements. The collection of tax or the issuance of a retail sales tax permit shall not be construed to condone or legalize any games of skill or chance or slot-operated devices prohibited by law. The amusement tax is not a privilege tax but is a tax on the gross receipts from amusements computed after the gross receipts shall have been received.

Gross receipts mean and include all money taken in by the operator of any amusement, game or device operated for profit in the state of Iowa, whether received in money, trade, barter or donations.

The gross receipts from spindles of numbers and glass jar numbers or "tips" and other like games include the total amount taken in by the operator of such games. Pay out in cash or otherwise to winners is not deductible from the gross receipts on which the tax is to be computed.

The gross receipts from slot machines, where the jackpot is locked and will not pay when the player "hits the jackpot," is the total amount which the operator thereof takes from the machine, notwithstanding the fact that there is a guaranteed amount to be paid to the winner of the jackpot. Where the jackpot is refilled from the amount deposited in the machine by the player and drops when the player "hits the jackpot," the gross receipts is the amount which the operator of such machine takes from the receptacle in which the proceeds from the machine are deposited.

The gross receipts from operation of a slot machine that vends coins is the amount of money removed from the said machine. That is true even though the jackpot may be guaranteed and paid out independently of the machine. In other words the sales tax must be computed as two percent of all money taken from the machine regardless of what happens to the money after having been removed therefrom.

The gross receipts from fortune telling and fortune tellers are taxable amusements within the meaning of the law. Every concession

at a fair, carnival or like place is considered an amusement where an admission is charged or a collection of voluntary contributions taken by the person operating the concession. The only exemption is advertising booths at which no taxable personal property is sold and where entertainment is furnished without charge or contribution.

Where cigarettes are given away on punch boards, the cigarettes are not deductible even though tax has been paid on the cigarettes. Punch boards are considered amusement games. A punch board giving cigarettes away is no different from any other board, the cigarettes merely become a prize in a game.

The tax applies on the gross receipts from the sale of chances by all organizations. The only exception is when the entire net proceeds of the sale are expended for educational, religious or charitable purposes.

A person operating amusements is required, as far as practicable, to collect sales tax from patrons. The law which provides for tax on amusements and games, is an amendment to the sales tax law, therefore, all of the provisions of the sales tax law apply to amusement tax.

Any municipal swimming pool, golf course or other playground and athletic activity operated solely by a municipality and not for profit is not covered by this Act, and, therefore, not subject to the tax. All private pools, golf courses and other playground and athletic activities are within the provisions of the statute and are taxable. [Amended August 5, 1958 and October 10, 1958]

Section 422.43

For tax on admissions see rule No. 20.

111.2 River steamboats. River steamboats hauling passengers on pleasure rides on the Mississippi river or any other river within the state or which forms a boundary line between this and another state is an amusement enterprise within the meaning of the law, where passengers are picked up or tickets sold to them on the Iowa side of the river the gross receipts from such sales are taxable.

Section 1.3 of the Code provides that the state has jurisdiction on the waters of any river or lake which forms a common boundary between this or any other state and therefore such boat rides and amusements are not to be considered as interstate transportation.

For tax on admissions see rule No. 20.

111.3 Rental of personal property in connection with the operation of amusements. The law provides for a tax of two percent on the gross receipts from commercial amusements. The gross receipts upon which retail sales tax shall be computed shall include the rental of personal property in connection with the operation of amusements. Such rentals shall include towels, swim suits, boats, golf clubs, roller skates, saddle horses and all other personal property or equipment used by patrons in connection with the operation of

commercial amusements notwithstanding the fact that the rental of such personal property may be billed separately. [Amended November 30, 1964]

For tax on admissions see rule No. 20.

111.4 Admissions to state, county, district and local fairs. The law with reference to tax on amusements and entertainments may be found in section 422.43. The law in subsection 4 of Code section 422.45 exempts the gross receipts from sales of tickets or admissions to state, district, county, or local fairs. There is no doubt that the sale of tickets or admissions to a fair, notwithstanding the fact that an automobile or other prizes shall be given away to the holder of the lucky ticket of admission, is exempted. Moreover, the law which placed a tax on amusement devices provides, "but no tax shall be imposed upon any activity exempt from sales tax under the provisions of subsection 4 of section 422.45, Code of 1946", which grants exemptions as follows:

"The gross receipts from sales of tickets or admissions to state, county, district and local fairs, and the gross receipts from educational, religious, or charitable activities, where the entire net proceeds are expended for educational, religious, or charitable purposes."

It is evident that it was the intention of the legislature to exempt tickets or admissions to state, county, or local fairs; such an exemption is not affected by the tax on amusements. Therefore, there is no sales tax on tickets or admissions to a fair even though a prize may be given in connection therewith.

The exemption as to state, county and local fairs applies to all of the activities and admissions to events operated solely by the fair association in connection with a fair. Therefore, the exemption applies equally to admissions to the fair, to the grandstand, to horse races and other performances and also to evening entertainments in front of the grandstand conducted by the fair association.

The exemption does not apply to any entertainment or activity conducted by a concessionaire even though the fair association may be interested in the concession and obtains a percentage of the receipts.

For tax on admissions see rule No. 20.

111.5 Horse show not a fair—fair defined. The holding of a horse show does not constitute a state, county, district or local fair. Subsection four of Code section 422.45 exempts the gross receipts from the sale of tickets of admission to state, county, district and local fairs from the imposition of a retail sales tax. The fact that the fair association is a nonprofit organization is not material, for retail sales tax is not concerned with either profit or loss but is a tax on the gross receipts from the sale of tangible personal property at retail and the sale of tickets or admissions to places of amusement. There can be no doubt that a horse show is an amusement, notwithstanding

the fact that it is sponsored by a county fair association.

The term "Fair" is defined in section 174.1, Code of 1950, 1954, as follows:

"1. 'Fair' shall mean a bona fide exhibition of agricultural, dairy and kindred products, livestock and farm implements."

It will be noted that the several things to be exhibited are connected by the conjunctive word "and". A show which exhibits horses primarily for entertainment is neither a state, district, county or local fair, therefore, the gross receipts from the sale of tickets of admission to such an exhibition are subject to the retail tax.

The powers of a fair association which is designated as a "society" in the Code are defined in Code section 174.2 as follows:

"POWERS OF SOCIETY. Each society may hold annually a fair to further interest in agriculture and to encourage the improvement of agricultural products, livestock, articles of domestic industry, implements and other mechanical devices. It may offer and award such premiums as will induce general competition."

The society is limited to the holding of one fair annually. It is implied from the powers granted the society that the one annual fair is the only fair to be held.

For tax on admissions see rule No. 20.

111.6 Commercial amusement enterprises—companies or persons which contract to furnish show for fixed fee. Prior to the enactment of chapter 226, Acts of the Fifty-second General Assembly, the tax was limited to two percent of tickets or admissions to places of amusement. Said chapter 226 is now included in section 422.43. A tax is imposed beginning with the first day of July, 1947, upon the gross receipts derived from the operation of all forms of amusement devices and commercial amusement enterprises so that it is not necessary for the operator of an amusement device to charge an admission. The gross receipts are taxable without regard to the manner in which such gross receipts are received. For the reasons above stated, any circus, show, carnival company or person contracting with persons to put on a show for a fixed fee is liable for tax at the rate of two percent of the amount paid in for such performances or operation of the amusement device.

For tax on admissions see rule No. 20.

Section 422.43

112 Applies to sales tax only. Skating rinks. The gross receipts from the operation of an ice or roller skating rink are taxable, including receipts from renting the rink to individuals and parties and fees charged for rental of skates. Skating being an amusement all of the provisions of rules No. 111 and 111.1 apply thereto.

113 Sales of ice. All sales of ice for domestic or commercial consumption are taxable.

Persons making retail sales of ice must pay the tax even though the purchaser thereof

uses the same in cooling perishable personal property which is to be resold by him.

Sales of cube ice to restaurants or taverns, which is placed in drinks sold at the place of business, are not subject to the sales tax. Sales of ice for use in air cooling devices or refrigerator units are taxable.

The gross receipts from the sale of ice are taxable where ice is sold to railroads or other persons to be used for icing or reicing cars belonging to the carrier, other carriers or persons owning such cars.

Persons selling ice are required to hold a retail sales tax permit and remit tax to the commission in accordance with the provisions of this rule. Railroads are deemed to be the consumers and not retailers where ice is used by them for icing or reicing cars for shippers even though a charge is made for such service.

114 Photographers and photostaters. Tax applies to sales of photographs and photostat copies, whether or not produced to the special order of the customer, and to charges for the making of photographs or photostat copies out of materials furnished by the customer. No deduction is allowable on account of such expenses of the photographer as travel time, rental of equipment, or salaries or wages paid to assistants or models, whether or not such expenses are itemized in billings to customers.

Tax does not apply to sales to photographers and photostat producers of tangible personal property which becomes an ingredient or component part of photographs or photostat copies sold, such as mounts, frames and sensitized paper, but does apply to sales to the photographer or producer of materials used in the process of making the photographs or photostat copies and not becoming an ingredient or component part thereof, such as chemicals, trays, films, plates, proof paper, and cameras. [Amended August 10, 1962]

Section 422.42 (3)

114.1 Photo finishers. Tax applies to charges for printing pictures or making enlargements from negatives furnished by the customer but not to charges for developing the negatives if such charges are separately stated. Tax does not apply to charges for tinting or coloring pictures furnished to the finisher by the customer. Tax applies to sales to photo finishers of all tangible personal property used by them in developing negatives, finishing pictures, and coloring or tinting pictures furnished by customers, except sensitized paper upon which the prints are made, and frames and mounts sold along with the finished pictures. [Amended August 10, 1962]

Sections 422.42 (6) and 422.42 (5)

114.2 Sales of photographs to newspaper or magazine publishers for reproduction. The sale of photographs by a person engaged in the business of making and selling photographs to newspaper or magazine publishers for reproduction is taxable. [Amended August 10, 1962]

Section 422.42 (6)

115 Gravel and stone. Where a contract is entered into between a contractor and a county and the contract calls for a stockpile delivery along a road to be improved, there is a sale of tangible personal property to the county. Sales tax does not apply on such transactions for it qualifies for the sales tax exemption enacted by the 55th General Assembly that became effective on July 4, 1953. Where a contract provides not only for the sale and delivery of materials but also for the conversion thereof into realty improvements, the contractor is the ultimate consumer of the material used and is liable for tax. The tax would apply on the purchase price of the material or the production cost thereof. [Amended August 10, 1962]

EXAMPLE 1: A contractor enters into contract with a county to furnish the materials and labor necessary for the construction of a cement culvert. That is a construction contract. The contractor is considered the ultimate consumer of the materials used, and is liable for the tax thereon as stated in the above paragraph.

Sections 422.42 (6), 422.42 (10) and 422.42 (12)

116 Antiques, curios, old coins or collectors' postage stamps. Curios, antiques, art work, coins, collectors' postage stamps and such articles sold to or by art collectors, philatelists, numismatists and other persons who purchase or sell such items of tangible personal property for use and not primarily for resale, are sales at retail subject to the tax.

Stamps, whether canceled or uncanceled, which are sold by a collector or person engaged in retailing stamps to collectors, are taxable.

The distinction between stamps which are purchased by a collector and stamps which are purchased for their value as evidence of the privilege of the owner to have certain mail carried by the U. S. government, is that which determines whether or not a stamp is taxable or not taxable. In other words, a stamp becomes an article of tangible personal property having intrinsic value when, because of the demand, it can be sold for a price greater than its face value. On the other hand when a stamp has only extrinsic value as evidence of the right to certain services or as indicating that certain revenue has been paid it is not subject to either retail sales tax or use tax.

It is not the custom to trade in stamps which have no inherent value, but when, because of scarcity of the stamp, its value as a piece of printed paper increases in proportion to the demand or scarcity of such an article; then the stamp becomes an article of tangible personal property and its sale is taxable.

Stamps are not taxable when purchased for and intended to be used for obtaining postal service or indicating that certain revenue has been paid.

117 Pawnbrokers. Pawnbrokers are primarily engaged in the business of lending

money for the repayment of which they accept as security tangible personal property from the owner or pledgor.

In case the pledgor does not redeem the property pledged or pawned within specified statutory time, such property is forfeited to the pawnbroker, to whom title thereto passes at such time.

Where pawnbrokers thereafter sell such articles at retail, they are making sales within the sales tax law, and must collect and remit the tax thereon.

118 Druggists and pharmacists. Pharmacists and registered prescription druggists engaged in the business of selling drugs and medicines on prescription, and other merchandise at retail, are liable for tax on the gross receipts from such sales.

Sales made by pharmacists or prescription druggists to physicians, surgeons, dentists, veterinarians, or other consumers and users are sales at retail and are taxable.

(See rules Nos. 92, 94.1 and 102)

119 Memorial stones. Persons engaged in the business of selling memorial stones are selling tangible personal property, and when such stones are sold to final buyers, the gross receipts from such sales are taxable. Where the seller of a memorial stone agrees to erect a stone upon a foundation, the total gross receipts from the sale, including the erection of the foundation and the stone, are taxable, since the foundation is deemed to be a part of the sale of the memorial stone, and the total selling price, including the foundation, represents the sale at retail.

Charges for inscription, or other work incident to preparing a stone for the customer before it is erected, constitute a part of the selling price of the stone, and are therefore taxable.

Charges for inscription upon a stone subsequent to the erection of same, are considered sales of service upon which no sales tax applies.

120 Applies to sales tax only. Commercial telephone exchanges. All telephone companies operating an exchange must hold a retail sales tax permit and all companies operating more than one exchange must have a sales tax permit for each business office that it maintains. They must collect and remit sales tax upon the gross receipts from such operations. [Amended August 10, 1962]

The tax shall apply to receipts from the transmission of messages and conversation wholly within the state, for which the exchange collects the charge. In the case of a pay station, the exchange must pay the tax on the total receipts therefrom. Where a minimum amount is guaranteed to the exchange from any pay station, the tax shall be computed on the full amount collected.

Fees known as switch board charges paid to a commercial telephone exchange by telephone lines, not operating switch boards, must be

included in the gross receipts of such commercial exchange.

Commercial telephone companies which levy assessments upon their subscribers on a quarterly, semiannual, annual or any other basis, must include the amount of such assessments in their gross receipts.

In computing the tax due this state, federal taxes separately billed the customer shall be excluded.

Exemption: Receipts from telephone services rendered in connection with essential governmental functions of the United States, state of Iowa, counties, cities, school districts and other governmental subdivisions of the state of Iowa are exempt from tax, except sales to any tax levying body used by or in connection with the operations of any municipally-owned utility engaged in selling gas, electricity or heat to the general public. [Amendment filed August 19, 1954]

Collection of the tax from users: The tax on local exchange service shall be computed on the amount billed by the exchange to each subscriber or member for such service and the amount of the tax shall be indicated on the toll statement, excluding the federal tax on the toll calls.

Telegrams charged to the account of telephone subscribers and billed by the telephone company shall appear on the toll bill with the tax added.

Where one commercial telephone company furnishes another commercial telephone company services or facilities which are used by the second company in furnishing telephone service to its customers, such services or facilities furnished to the second company are in the nature of a sale-for-resale and the charges therefor are exempt from the sales tax.

120.1 Communication services furnished by hotel to its guests. Hotels in the state of Iowa, as a common practice, purchase telephone communication service from telephone companies and furnish such services to the guests of the hotel. The hotel makes a charge for this communication service to its guests in an amount which exceeds the cost of such service to it from the telephone company.

The retail sales tax shall apply to the entire charges which the hotel makes to its guests for such communication service whether the guest calls be local or long distance, except that interstate calls are exempt.

However, for the efficient administration of the law, the hotel shall remit to the telephone company a tax of two percent of the gross receipts which the telephone company derives from the charges for all communication services, except interstate calls, and the telephone company shall be responsible for reporting and remitting such tax to the state.

In addition to the foregoing, the hotel shall report to the state as its gross receipts, the amount which it charges its guest which is over and above the amount of the guest call

126.1 Leasing or renting of tangible personal property to lessees who use or consume the property, by persons engaged in such business, but who are also engaged in the business of selling the same type of property to consumers or users.

1. Persons engaged in the business of leasing, renting, or loaning to users or consumers in Iowa the same type of tangible personal property which they are also engaged in the business of selling at retail, will, when they lease, rent or loan tangible personal property with an option to purchase to users or consumers, be deemed and considered as making sales at retail within the meaning of section 422.42 (3), Code of Iowa, and therefore, subject to the payment of sales tax measured by the amount of gross rental receipts plus the amount of gross sales receipts when the item is sold. Sales tax shall be remitted to the state on such transaction in the same manner as is provided in section 422.42 (6), Code of Iowa, for sales made under conditional sales contract, except new motor vehicles and new trailers shall be subject to the provisions of section 423.7 and 423.8 and use tax shall be paid in full to the county treasurer or state motor vehicle registration division before the original Iowa registration is issued.

2. Persons out of Iowa, who lease, rent or loan tangible personal property with an option to purchase, to lessees to be used by the lessee in Iowa, shall be considered and deemed to be making a sale of the property and the lessee shall be considered and deemed to be making a purchase of the property within the meaning of section 423.1 (2), Code of Iowa, and such lessees shall be subject to the payment of use tax measured by the total amount of rental receipts plus any amount paid as purchase price. Retailers collecting use tax for the state, who lease with an option to purchase, shall collect the use tax and remit to the state as provided by rule No. 188 and section 423.13.

3. A transaction called a lease with an option to purchase, where the rental receipts are nominal and the option to purchase is not exercised by the lessee within a reasonable time, will be deemed and regarded as a rental without an option to purchase and the tax will be applied according to the provisions of Rule No. 126. [Amended August 5, 1958]

See rule No. 166.

127 Purchases or sales by schools—sales tax. 1. When purchasing coal, library books, supplies, equipment, etc., except new motor vehicles, in Iowa for consumption, or use by the school but not for sale, schools are required to pay the two percent sales tax to the retailer at the time of purchase, the same as private individuals. Effective July 4, 1953, public schools are exempt from sales tax. [Amendment filed August 19, 1954]

2. When purchasing textbooks and other supplies in Iowa for sale and not for consumption or use, schools are not required to pay the two per cent sales tax.

3. When selling to pupils textbooks or supplies that belong to the school district where the net proceeds go into the general fund, the seller appointed by the board as depository agent is not required to collect the two percent sales tax whether such seller is a retail merchant or some person appointed to make such sales at the school building, but if such books or supplies are privately owned the seller must collect said tax.

4. When selling tickets to athletic games and other school activities, where the entire net proceeds thereof are expended for school purposes, schools are not required to collect the two percent state sales tax.

Use Tax. 1. When purchasing coal, library books, supplies, equipment, etc., except new motor vehicles, outside of Iowa for consumption or use by the school or for rental purposes but not for sale, schools, in the event the said use tax has not been paid to their supplier, are required to pay the two percent use tax direct to this commission, the same as private individuals. Effective July 4, 1953, public schools are exempt from use tax. [Amendment filed August 19, 1954]

2. When purchasing textbooks and other supplies outside of Iowa for sale and not for consumption or use, schools are not required to pay the two percent use tax.

3. When purchasing new motor vehicles outside or inside of Iowa for use by the school, two percent use tax imposed thereon shall be paid by the school to the county treasurer of the county in which the vehicle is required to be registered. Effective July 4, 1953, public schools are exempt from use tax. [Amendment filed August 19, 1954]

127.1 School lunch program. The Act of the 52nd General Assembly which provided for refund of taxes paid to tax certifying and tax levying bodies did not in any manner change the law in regard to exemption of tangible personal property purchased for resale. For many years past, purchases made by schools for resale have been exempted from sales tax under the provisions of rule No. 24. Therefore, purchases of groceries, meats and other articles of food which are to be resold by the school are exempt from the retail sales tax upon presenting, to the retailer, a certificate of resale ST-5.

When school lunches are resold to pupils, such transaction is also exempt from the retail sales tax by virtue of subsection four of section 422.45 for the reason that the entire net proceeds of a school lunch program are returned to that program or to the school district and such net proceeds, if any, are therefore expended for educational purposes.

128 Applies to sales tax only. Activities of schools and religious or charitable organizations. The gross receipts from educational, religious, or charitable activities, where the entire net receipts are expended for educa-

tional, religious, or charitable purposes only, are exempt from the sales tax.

Such exemption is available, in the case of a school or college, when athletic activities constitute a curricular or extracurricular activity of the school or college, and are subject to its management and control.

A religious or charitable organization claiming this exemption must be an established and recognized organization devoted to educational, religious, or charitable purposes.

No claim for such exemption will be allowable unless it is clearly shown that the entire net proceeds of the activity are to be devoted to educational, religious, or charitable purposes.

Each claim for such exemption will be considered in the light of the particular circumstances.

This rule is applicable in the case of receipts from lectures, dances, and entertainments sponsored by the same kind of organizations.

129 Undertakers and funeral directors. The funeral director or undertaker is engaged in the business of selling tangible personal property such as caskets, grave vaults, and occasionally, grave clothing and flowers. He is likewise engaged in rendering service, such as embalming, and providing livery service and other accessories necessary and convenient in conducting funerals. He is liable for tax measured only by his gross receipts from sales of tangible personal property, as distinguished from services which he renders.

Where funeral directors and undertakers charge lump sums to customers covering the entire cost of the funeral, without dividing the charge for tangible personal property and the charge for services in rendering a bill to the customer, for the purpose of reporting the sale of funeral supplies and merchandise, funeral directors shall report the full amount of the funeral bill, less any cash advanced for purposes such as the purchase of a cemetery lot or grave, opening and closing of grave, other cemetery expenses, remuneration of minister, choir, use of church, press notices or any other cash advanced.

Retail sales tax shall be reported and paid at the rate of two percent on fifty percent of the total funeral bill, less cash advanced. All other plans or methods of reporting retail sales tax by funeral directors for the sale of funeral supplies and merchandise are hereby declared to be null and void.

The funeral director must keep his books so as to show clearly the receipts, cash advances, invoices, sales records, and such other pertinent facts as may from time to time be required by this commission.

The funeral director is considered to be purchasing for resale caskets, grave vaults, grave clothing, embalming fluid, cosmetics, chemicals, etc., the tax on which is passed on to his customers and the funeral director should purchase such items tax free from his

suppliers on the theory of resale. The tax on such merchandise shall be accounted for on the basis of two percent of fifty percent of the charge for a complete funeral.

The funeral director is considered to be using or consuming office furniture or equipment, funeral home furnishings, advertising calendars, booklets, motor vehicles and accessories, embalming instruments and equipment, grave equipment, stretchers, baskets and other items which the funeral director uses or consumes in the operation of his business and the title and possession to which are not passed on to his customer. With respect to these items the funeral director should pay the sales tax to his Iowa supplier when the items are bought in this state and should remit use tax directly to the commission when such items are purchased out-of-state, unless the out-of-state supplier is registered with the commission and authorized to collect the use tax for the state, in which last instance the use tax should be paid to the registered supplier.

Where a funeral director is engaged to prepare a body and place it in a casket for shipment out of the state in what is known to the trade as "shipouts" the retail sales tax shall apply. The delivery of the casket is deemed to have taken place when the body was placed therein.

130 Dentists. Dentists render professional services, the gross receipts from which are not subject to the retail sales tax. On the other hand, the dentist is deemed to be the final user or consumer of all tangible personal property purchased by him for his use in the rendition of his professional service, except "repair work" furnished to him by Iowa dental laboratories, the last subject being hereinafter discussed.

The dentist being the final user or consumer of the tangible personal property which he purchases for use in the rendition of his professional services, should pay the sales tax to his Iowa suppliers on all such purchases made in Iowa with the exception of "repair work" furnished by Iowa dental laboratories.

The dentist should also report and remit the use tax directly to the commission concerning all tangible personal property purchased from out-of-state suppliers, unless the out-of-state supplier is registered with this department and authorized to collect the use tax for the state, in which last instance the use tax due should be paid to the registered supplier.

The Iowa dental laboratory will bill its Iowa dentist customers for sales tax on the full charge made for all new work which involves the sale of tangible personal property to the dentist. Charges which are made by Iowa dental laboratories to the dentist for services classified as "repair work" are not subject to sales tax, insofar as the Iowa dentist is concerned. The Iowa dental laboratory is deemed to be the final user or consumer of the tangible personal property which the laboratory uses in

completing the "repair work" furnished to the dentist. The Iowa dental laboratory will arrive at the amount of material used in such "repair work" by deducting eighty-five percent of the full charge made for the repair work and compute the sales tax at the rate of two percent on the balance, or two percent of fifteen percent of the total charge for the repair work.

Where the Iowa dentist has "repair work" furnished by dental laboratories located outside the state, who are not registered for the collection of the use tax, the Iowa dentist when reporting and remitting use tax on such "repair work" shall compute the tax on fifteen percent of the total charge made for the "repair work."

"Repair work" within the meaning of this rule shall consist of:

DENTURES	PARTIALS	BRIDGE
1. Tooth or teeth	(Metal Work) 1. Solder clasp	1. Grind-in tooth or teeth
2. Broken	2. Solder bar	2. Repair crown
3. Repair post-dam	3. Repair new clasp (add on)	3. Assemble bridge
4. Relines	4. Add rest lug	4. Add porcelain
5. Periphery border	5. Add saddle clasp	
6. Reface (new gum)	6. Add tang to clasp	
7. Vulcanize clasp to place	7. Add retention to bar	
8. Back up anterior teeth		
9. Repair broken horn (Anterior)		

131 Applies to sales tax only. **Iowa dental laboratories.** Iowa dental laboratories are engaged in selling tangible personal property to and performing services for Iowa dentists.

The receipts of the Iowa dental laboratories from the sale of tangible personal property to dentists are subject to the Iowa retail sales tax law, with the exception of "repair work" furnished to Iowa dentists.

The Iowa dental laboratory is deemed to be the final user or consumer of the tangible personal property which it uses in order to complete "repair work" furnished to Iowa dentists. Being the final consumer of such materials, laboratories should account to the commission in their retail sales tax returns under item 1 "a" thereof the value of such materials used in the "repair work." The tax is not passed on to the dentist as an item of tax with respect to "repair work." The laboratory shall arrive at the amount of material used in the repair work by determining fifteen percent of the full charge made to the dentist for the repair work and compute the two percent tax on that figure.

The Iowa dental laboratory should purchase tax-free all tangible personal property which forms a component or integral part of the

new work or "repair work" which it is furnishing to Iowa dentists or other dentists, on the theory of resale.

The Iowa dental laboratory is deemed to be the final user or consumer of all other tangible personal property, including tools, office supplies, equipment, and any other tangible personal property which does not form a component part of the new work or "repair work" furnished to Iowa dentists. With respect to these items it should pay the sales tax to its Iowa suppliers when purchasing in this state, or should remit the use tax directly to the commission when such items are purchased from out-of-state suppliers, unless the out-of-state supplier is registered with this commission and authorized to collect the use tax for the state, in which last instance the use tax should be paid to the registered supplier.

The Iowa dental laboratory is required to hold a retail sales tax permit.

"Repair work" within the meaning of this rule shall consist of:

DENTURES	PARTIALS	BRIDGE
1. Tooth or teeth	(Metal Work) 1. Solder clasp	1. Grind-in tooth or teeth
2. Broken	2. Solder bar	2. Repair crown
3. Repair post-dam	3. Repair new clasp (add on)	3. Assemble bridge
4. Relines	4. Add rest lug	4. Add porcelain
5. Periphery border	5. Add saddle clasp	
6. Reface (new gum)	6. Add tang to clasp	
7. Vulcanize clasp to place	7. Add retention to bar	
8. Back up anterior teeth		
9. Repair broken horn (Anterior)		

For regulations as to out-of-state dental laboratories, see rule No. 198.

132 Dental supply houses. Dental supply houses are engaged in selling tangible personal property to dentists and dental laboratories.

The gross receipts from the dental supply house derived from the sale of tangible personal property sold for delivery in Iowa to dentists are subject to the retail sales tax.

The gross receipts of the dental supply house from the sale of tangible personal property sold for delivery in Iowa to Iowa dental laboratories are subject to the retail sales tax, except that property which the dental laboratory uses in forming a component part of the tangible personal property furnished to his dentist customers, which includes new work and repair work. When the dental laboratory is purchasing tangible personal property, a part of which is to form a component part of the property which it is selling and a part of which it is to use or consume, the laboratory may give to its supplier a certificate of resale

covering the entire purchase, after which the supplier will omit the billing of the sales tax. Dental laboratories making intrastate sales to Iowa dentists or Iowa dental laboratories are required to hold a retail sales tax permit.

Dental laboratories making interstate sales to Iowa dentists or dental laboratories are required to register for the collection of use tax, in event they come within the mandatory requirements of the use tax law, in the matter of registering and collecting the use tax for the state.

133 News distributors and magazine distributors. News distributors and magazine distributors engaged in selling magazines and periodicals intrastate in Iowa to magazine boys or girls or other persons who are engaged in part-time distribution of such magazines are deemed to be making sales at retail, the receipts from which are subject to the retail sales tax.

Such news distributor's or magazine distributor's receipts from the sale of magazines or periodicals to street newsstands will be subject to the retail sales tax, provided the operator of the newsstand does not hold a retail sales tax permit.

134 Magazine subscriptions by independent dealers. The gross receipts from the sale of subscriptions to magazines or periodicals, derived by independent distributors or dealers in the state of Iowa who secure such subscriptions as independent dealers or distributors, are subject to the retail sales tax and such independent distributors or dealers must hold a retail sales tax permit and report two percent of receipts derived from such subscriptions.

If, however, the person securing the subscription in Iowa is acting as an agent for an out-of-state publisher or subscription agency and the subscription is forwarded to such out-of-state principal for acceptance and fulfillment by shipment of the magazines to the subscribers in Iowa, the receipts from such subscriptions are subject to the retail sales tax law. (See rule No. 190.) The commission has found that it is necessary for the practical administration of the law to hold an agent selling magazine subscriptions liable for the collection of either the retail sales tax or use tax as the case may be.

Section 423.1

135 Applies to sales tax only. Sales by finance companies. Finance companies who repossess or acquire tangible personal property in connection with their finance business and who sell tangible personal property at retail in Iowa are required to hold a retail sales tax permit and remit to the commission 2 percent of their receipts of such sales at retail in Iowa. For rules in reference to motor vehicles, see No. 207 and No. 209.

136 Sales of baling wire—binder twine. The sale of baling wire and binder twine to farmers is subject to sales tax. If baling wire

is used by a farmer in baling hay for sale on the public market, it would be tax exempt as an item for resale.

Commercial balers who are employed to bale hay are subject to sales tax on all baling wire acquired by them. [Amended August 10, 1962]

137 Applies to sales tax only. Claim for refund of sales tax. See section 422.66.

Refunds of sales tax are made by the commission only to those persons who have remitted such sales tax directly to it.

Persons claiming refund of sales tax shall prepare such claim on official claim for refund blanks, form ST-52A, which forms are furnished by the commission. The claims for refund must be filed in duplicate with the commission, each of which should be properly sworn to in the presence of a notary public or clerk of district court. Such claims should be fully executed and clearly state the reasons and facts on which the claim for refund is based.

Section 422.67

For refund to tax certifying and tax levying bodies—see rule No. 49. For refund to relief agencies see rule No. 51.

PART II

MATERIALS AND SUPPLIES USED IN CONSTRUCTION

Rules Nos. 138 to 169, inclusive

Materials and supplies sold to owners, construction contractors and subcontractors for the erection of buildings, and the alteration, improvement and repair of real property.

138 Construction contract. A construction contract is one under the terms of which a party agrees to furnish the necessary building or structural equipment and materials and install or erect same on the project site, in connection with the construction, alteration or repair of a building or other structure or improvement on land, but does not include the furnishing and installation of machinery and equipment used within the structure for manufacturing or processing operations, or other purposes, which is not directly intended as an addition to, or essential to, the building structure. (See rule No. 143 relating to the furnishing and installation of machinery and equipment.)

138.1 General construction contractor. A general construction contractor is a person who contracts to furnish the necessary materials and labor for the performance of a construction contract and generally is one who contracts to build the entire project or a major portion thereof. The person with whom the general construction contractor contracts is ordinarily the owner of the land and structure thereon.

138.2 Special construction contractor. A special construction contractor is one who contracts directly with the sponsor of the project

to furnish the necessary materials and labor to complete a special portion of a construction project which is not included in the general contract.

138.3 Construction subcontractors. A construction subcontractor is a person who contracts to furnish the necessary materials and labor for the completion of a portion of the general construction contract for erection or installation on the job site. The construction subcontractor ordinarily contracts with the general contractor to perform a certain part of the work which the general contractor has undertaken under the general construction contract, but sublets.

138.4 Sponsor. A sponsor is the other party to a contract, where a construction general contractor or a construction special contractor or a construction subcontractor contracts to do construction work, under class "A", "B", "C" or "D" contract. The general contractor is considered to be a sponsor of his subcontractors. [Filed December 27, 1956]

138.5 Materials supplier not a subcontractor.

1. A person who sells tangible property, in the form of building or structural material, to a construction contractor, where the person makes no erection or installation of the material at the job site, is not to be regarded as a subcontractor.

2. Such a person is a material supplier or a retailer selling tangible personal property. (See rule No. 138.7, par. 2.)

138.6 Classification of construction contracts. Construction contracts are generally let under one of four classes of contracts, viz:

Class (A) those in which the contractor or subcontractor agrees to furnish the materials and supplies and necessary services for a lump sum;

Class (B) those in which the contractor or subcontractor agrees to furnish the materials and supplies and necessary services on a cost plus basis;

Class (C) those in which the contractor or subcontractor agrees to furnish the materials and supplies and necessary services on a time and material basis with an upset or guaranteed price which may not be exceeded;

Class (D) those in which the contractor or subcontractor agrees to sell the materials and supplies at any agreed price or at the regular retail price and to render the services either for an additional agreed price or on the basis of labor employed.

138.7 General construction contractors, special construction contractors and construction subcontractors under contracts, class "A" (lump sum), class "B" (cost plus) and class "C" (time and material with upset price) and class "D" are consumers.

1. For the purpose of retail sales tax and use tax, construction contractors, including

general, special and sub using class "A", "B", "C" or "D" contracts, are regarded as the consumers or users of all tangible personal property which they purchase, acquire or manufacture for use in completing their respective construction contracts. [Filed December 27, 1956]

2. This means these should pay the retail sales tax to their Iowa supplier when purchases of tangible personal property are made in this state, in other words, Iowa retailers making local intrastate sales to such persons of tangible personal property, to be used for such purposes, are making sales at retail the receipts from which are subject to retail sales tax. If the contractor uses tangible personal property in completing the construction, on which he has himself manufactured or fabricated, the tax will be two percent of his manufactured or fabricated cost.

3. This likewise means, that these contractors purchasing, acquiring or manufacturing tangible personal property outside the state of Iowa, for such use in Iowa, owe use tax on such out-of-state purchases, measured at the rate of two percent of the purchase price, or in the case of a product manufactured by himself, the contractor owes two percent of his cost of manufacture.

4. The use tax should be paid by the general construction contractor, special construction contractor or construction subcontractor, directly to the state tax commission, using the consumer's use tax return form UT-510, unless the out-of-state vendor from whom purchased is registered with the use tax department and does bill and collect the Iowa use tax for the state.

5. The construction, general, special or subcontractor, when bidding on a lump sum basis, should anticipate that the sales or use tax will increase his cost of building materials two percent and make the necessary allowance in his bid before submission, inasmuch as the tax is not collected from the sponsor over and above the contract price on such contract.

6. Sums paid to the owner of the land for the privilege of removing sand, gravel, rock, stone or other minerals from the land for use by one whose principal business is laying pavement or constructing streets, roads, or highways which materials are used by them for that purpose are not payments for the purchase of tangible personal property. Therefore, the transaction is not subject to sales tax.

7. The screening, washing, crushing, sizing and otherwise processing of sand, gravel, rock, stone or other minerals is not "manufacturing" by one whose principle business is laying pavement or constructing streets, roads or highways within the provisions of section 422.42(11). Therefore, if the contractor is the owner or lessee of land and removes or causes minerals to be removed from the land and uses the minerals in the performance of a contract for laying pavement or constructing streets, roads or highways, such use does not consti-

tute a sale under the provisions of section 422.42(11), Code of Iowa, and is not subject to sales tax.

8. The mixing of crushed rock, sand and gravel with fluxing oil or similar materials and heating the mixture to regulated temperatures before using is not manufacturing by one whose principal business is laying pavement or constructing streets, roads or highways. And if a person so processing such materials uses the processed materials in the performance of a contract for laying pavement or constructing streets, roads or highways, such use does not constitute a sale under the provisions of section 422.42(11), Code of Iowa, and therefore is not subject to sales tax. Likewise, the combining of crushed rock or gravel, sand, cement and water and applying the same to prepared road surfaces is not manufacturing by one whose principal business is laying pavement or constructing streets, roads or highways and the cost of such processing is not subject to sales tax.

9. When sand, gravel, stone, rock or other minerals have been removed from their natural deposit and are then sold for use by the purchaser thereof as the ultimate consumer, a sale of tangible personal property is involved and such sale is subject to sales or use tax.

10. When crushed rock, sand or gravel are mixed with fluxing oil or similar materials and such mixtures heated to regulated temperatures and after such processing are sold for use by the purchaser thereof as the ultimate consumer, a sale of tangible personal property is involved and such sale is subject to sales or use tax.

11. When sand, gravel, stone or rock are combined with cement and water and the resulting combination is sold for use by the purchaser thereof as the ultimate consumer, a sale of tangible personal property is involved and such sale is subject to sales or use tax. [Amended November 30, 1964]

Paragraphs six through eleven are intended to implement section 422.42(11), Code of Iowa, as interpreted by *Associated General Contractors vs. Iowa State Tax Commission* 255 Iowa 673.

139 Rescinded December 27, 1956.

140 Contractors own tools and equipment. The contractor owes use tax on his own tools or equipment which are used by him on the job site in Iowa, provided, same have been purchased since April 16, 1937 (the effective date of the Iowa use tax law) and provided these have not been purchased by him in Iowa subject to retail sales tax. If acquired outside of Iowa within the date herein set forth, the contractor would owe use tax on such equipment to the state of Iowa measured at the rate of two percent of his purchase price. If the contractor has paid sales tax or use tax to another state with respect to such equipment used in Iowa, he may secure credit for the foreign tax payment by making an affirmative

showing to the use tax department concerning the purchase price, the amount of sales or use tax paid to the foreign state, together with the purchase date and description of the equipment. If the foreign tax paid is equal to the Iowa tax no further tax is due and if less than the Iowa tax, the difference is due the state of Iowa.

141 Contractor using in Iowa construction tools and construction equipment leased to him by others owning the equipment. Where the contractor has leased equipment from others, which he is using in connection with the construction work but which is not a part of the machinery or equipment furnished to the sponsor in performance of the contract, the owner of such leased equipment is or may be liable for the payment of use tax. The owner leasing such equipment to such contractor for such use in Iowa would owe use tax on any equipment purchased since April 16, 1937 and be entitled to credit for any sales tax or use tax he may have paid to a foreign state on such equipment, in the same manner as the contractor would on his own tools or equipment. The owner is exercising one of the rights of ownership over the property leased in Iowa which is taxed under the definition of "use". (See rule 166 relating to leased tangible personal property.) Any sales or use tax, due from such owner leasing equipment to the contractor completing a contract in Iowa, becomes a lien upon the rental fees due him from the contractor, under the provisions of the use tax law.

142 Rescinded December 27, 1956.

143 Machinery and equipment sales contracts with installation involved.

1. At times persons contract to furnish and install machinery and equipment in plants, shops and factories and other places where the machinery or equipment is intended to be used primarily in the production, manufacturing or processing of tangible personal property or other purposes not primarily essential to the building structure itself, but which incidentally may, on account of the nature of the machinery or equipment furnished, be more or less securely attached to the realty, but which does not lose its identity as a particular piece of equipment or machinery.

2. Such contracts are not to be considered as construction contracts for the purpose of the sales and use tax regulations and sales and use tax regulations applying to construction contracts do not apply to these transactions.

3. On the other hand, these transactions are to be considered as sales of tangible personal property by the supplier. If the sale is a local intrastate sale to a consumer or to any other person for any purpose other than resale, the sale is at retail and the receipts therefrom subject to retail sales tax.

4. If, on the other hand, the sales transaction is one in interstate commerce and if the sale is to a consumer in Iowa or other person tax-

able under the definition of "use", then the transaction comes within the scope of the use tax law and the purchaser is liable for the payment of use tax.

5. The measure of retail sales tax, in event the sale is local intrastate, is two percent of the contract price, unless the seller separates the installation charge for services on the job site from the selling price of the machinery or equipment itself. (See rule No. 42, Re: Installation charges.)

6. The measure of use tax is two percent of the full contract price, unless the charges for installation services on the job site are separated in the contract from the selling price of machinery or equipment itself. (See rule No. 42, Re: Installation charges.)

7. If the installation charge on the job site is set out separately by the seller to the buyer, then sales tax or use tax, as the case may be, applies only to the purchase price of the machinery or equipment.

8. However, if the installation charge is separated from the price of the machinery or equipment, and the seller in performing the installation phase of the contract uses tangible personal property in the installation work, then the seller shall be responsible for sales tax or use tax on the installation material itself measured at his cost.

9. The method of making a return and the payment of tax in the case of contracts for the sale and installation of machinery or equipment shall be the same as those rules applying to ordinary retailers under sales tax or retailers under use tax. (See sales tax rules, Nos. 11.1, 15 and 18.) (See use tax rule No. 181.)

10. A person who contracts to furnish and install machinery or equipment, as described in this rule and rule 144, may not contract directly with the ultimate owner of the equipment, normally the sponsor of the project, but his contract may be with the general construction contractor on the project, or a special construction contractor on the project or a subcontractor on the project. Inasmuch as his transaction is regarded as a sale, in event his contract is not with the ultimate owner of the equipment, but is with one of the contractors or subcontractors, then his sale will be considered a sale to such persons for the purpose of resale. This means the general contractor, special contractor or subcontractor, who is the other party to the contract, is making the sale at retail and will be required to bill the ultimate owner for the sales tax on such machinery or equipment so furnished. In such case, the person supplying the machinery or equipment shall secure from the other party to his contract a certificate of resale as provided for in sales tax rule No. 24 or use tax rule No. 187.

144 Distinguishing "construction contracts" from "machinery and equipment sales contracts."

1. At times it becomes difficult to distin-

guish in certain installations between a "construction contract" and a "machinery and equipment sales contract."

2. Inasmuch as the principles of application of sales and use tax vary with the type of contract and inasmuch as it is necessary for the efficient and uniform administration of these taxes, the commission is under this rule, attempting to place various sorts of these contracts into their proper category for the purpose of applying sales tax or use tax as the case may be.

3. Therefore, there is hereinafter listed (paragraph 4) those contracts which the commission holds fall within the category of "construction contracts" and to these the rules applying to construction contract should be followed, together with a listing (paragraph 5) of those transactions which the commission holds come within the category of "machinery and equipment sales contracts" and to these latter the rules pertaining to the sale of machinery and equipment to be installed by the buyer, are to be followed.

4. "Construction contracts" described in rules No. 138 and No. 138.7:

1. Brick work
2. Builders hardware
3. Caulking materials work
4. Cement work
5. Electric conduit work
6. Electric wiring and connections
7. Flooring work
8. Glass and glazing work
9. Gravel work
10. Concrete work
11. Lathing work
12. Leadwork
13. Lime work
14. Lumber and carpenter work
15. Macadam work
16. Millwork installed
17. Mortar work
18. Oil work
19. Painting work
20. Papering work
21. Piping valves and pipe fitting work
22. Plastering work
23. Putty work
24. Reinforcing mesh work
25. Roofing work
26. Sanding work
27. Sheet metal work
28. Steelwork
29. Stonework
30. Stuccowork
31. Tile work
32. Wallboard work
33. Wall coping work
34. Wallpaper work
35. Weather stripping work
36. Wire net screen work
37. Wood preserving work
38. Lighting fixtures
39. Plumbing fixtures
40. Furnaces, boilers and heating units (for space heating)

41. Air conditioning units (central plant installation as distinguished from portable units)
42. Refrigeration units (central plants installation as distinguished from portable units)
43. Passenger and freight elevators
44. Awnings and venetian blinds
45. Burglar alarm and fire alarm fixtures
46. Vault doors and equipment
47. Prefabricated cabinets, counters and lockers (installed)
48. Signs (other than portable)
49. Automatic sprinkler systems (fire protection)
50. Electric transmission lines
51. Electric distribution lines
52. Road construction (concrete, bituminous, gravel, etc.)
53. Underground sewage disposal
54. Underground water mains
55. Underground gas mains

5. "Machinery and equipment sales contracts" with installation by seller, described in rule No. 143:

1. Portable machines, equipment and tools
2. Furniture
3. Vehicles
4. Lathes
5. Drills
6. Presses
7. Cranes
8. Core ovens
9. Generators
10. Turbines (steam)
11. Electric motors (driving processing equipment)
12. Power switchboards
13. Boilers (not for space heating)
14. Stokers and furnaces (not for space heating)
15. Coal handling equipment (not for space heating)
16. Ash removal equipment (not for space heating)
17. Turbo-generator units
18. Manufacturing equipment and machinery used to handle, fabricate, manufacture raw materials into finished products and which is not primarily essential to the building structure itself
19. Paint booths and spray booths
20. Conveying systems handling raw materials or finished products
21. Diesel engines (for processing)
22. Coal pulverizing equipment (not for space heating)

6. The foregoing cataloging of the types of contracts mentioned is not intended to exhaust this subject, but it is the commission's interpretation of the categories in which each should be placed. From time to time it is the intention of the commission to catalog other transactions of this type in their proper places and add to the listings found in this rule. This is for the purpose of uniformity in the application of the sales and use tax to all persons who may be concerned. Information concerning any transaction which is not found

in this published rule may be secured by inquiry to this department.

145 Mixed, "construction contract" and "machinery and equipment sales contract."

1. There are occasions when a construction contract may be let, included in which is the furnishing and installation of machinery and equipment on a turn-key job basis. In other words, the construction contract is mingled with a machinery and equipment sales contract.

2. Where a contractor performs such a mixed contract for a lump sum, he will be considered to be the consumer, for the purpose of sales and use tax, of all structural or building materials supplied and installed and will be regarded as the retailer of the machinery and equipment furnished and installed.

3. If such a mixed contract is let for a lump sum amount, the machinery and equipment furnished and installed will be considered, for the purpose of this rule only, as being sold by the contractor for an amount equal to his cost of the equipment delivered at the job site, provided such machinery and equipment is listed as a "machinery and equipment sales contract" under the provisions of rule No. 144.

146 Machinery and equipment sales contractors are retailers.

1. Contractors furnishing and installing machinery and equipment as provided in rules 143 and 144 are retailers and would be required to apply for and hold a retail sales tax permit and report and remit two percent of the gross receipts from such sales, provided the transactions were local intrastate sales at retail in Iowa. (See sales tax rules No. 11.1 and No. 15.)

2. If such contractors selling equipment and machinery with installation involved are making interstate sales, they would be required to collect the amount of use tax due from the customer and report and remit same to this office quarterly in the same manner as other retailers selling subject to use tax. (See rules Nos. 170 and 181.) [Amendments filed December 27, 1956]

147 Certain construction contractors may also be retailers and need retail sales tax permit.

1. Some contractors may operate retail places of business where over-the-counter sales at retail are made as well as other sales for resale, etc.

2. Some types of contractors have a dual personality, namely, being consumers on their construction work under class "A", "B", "C" and "D" construction as well as retailers in over-the-counter sales. (See sales tax rule No. 168.1)

3. Such contractors, because of being engaged in selling at retail, are required to apply for and hold a retail sales tax permit. On their retail sales they bill their customer for the sales tax over and above the selling price and report two percent of the gross receipts from

retail sales as sales tax directly to this office using the retail sales tax return blank ST-50.

4. When such contractors purchase quantities of building materials, etc., some of which are sold over the counter at retail and some of which are used by the contractor in completing construction contracts under class "A", "B", "C" and "D", he is unable to determine at the time of purchase what portion will be used for each purpose. Therefore, such type contractor will be entitled to purchase tax-free from his supplier, by furnishing a certificate of resale to said supplier, all materials a part of which may be resold at retail (over-the-counter sales) and a part of which may be used in the construction work. The contractor of course would not be entitled to purchase tax-free for resale his own tools or equipment or any building materials or supplies, which are not subject to retail sales, but only that material a part of which may be resold and a part of which may be used in construction contracts. (See rule No. 24—certificate of resale.)

5. When filing his retail sales tax return the contractor will show under "Item 1." of sales tax return blank ST-50, his total gross sales for the quarter, which would include the amount of the over-the-counter sales at retail where no installation is involved, plus the amount of any over-the-counter sales for resale, etc.

6. Under "Item 1. a," of the retail sales tax return blank ST-50 the contractor would show the cost to him of all materials purchased tax-free for resale but used or consumed by him in completing construction contracts under class "A", "B", "C" or "D".

7. Appropriate deductions for items included in "Item 1," may be taken under "Item 2" and the net taxable sales plus the cost of materials used in construction contracts class "A", "B", "C" and "D" (Item 1. "a") are then grouped together and a two percent tax paid directly to the commission with the sales tax return.

8. Concerning the contractor's purchases of his own tools or equipment or other items which are not to be resold, the contractor should pay the sales tax to the Iowa supplier if these purchases are made in this state.

9. If the purchases mentioned in the last paragraph are made by the contractor outside the state of Iowa, then the contractor shall include such purchases in the consumer's use tax return UT-510 directly to this office, unless the out-of-state vendor from whom the purchase is made is registered with the use tax department and does bill and collect the Iowa use tax for the state. [Amendments filed December 27, 1956]

148 Sponsor's return of information. Upon request by this commission or any division thereof, sponsors who have awarded lump sum contracts are required to furnish to this commission or to any division thereof full information as to all contracts let and to furnish the names of the general and special

contractors entering into a contract with the sponsor and such other information germane to the contract let as is requested by this commission or any division thereof. In the event that the sponsor purchases any material direct from suppliers in addition to the material furnished by either the general or special contractors, then such purchasers of material shall be reported to this commission or to any division thereof upon forms furnished by said division.

149 Consumer's use tax returns and tax due quarterly.

1. Consumer's use tax returns, under the law, are required to be filed on a calendar quarterly basis consisting of three calendar months.

2. The quarterly periods for the year ending March 31, June 30, September 30 and December 31.

3. The full month is allowed following the close of each quarterly period in which to file the return and remit the tax before becoming delinquent. [Amended October 10, 1958]

150 Nonresident construction contractors required to make separate reports and returns on each individual Iowa construction contract.

1. Construction contractors, who are not residents of Iowa and who do not maintain a place of business in Iowa where full records are kept concerning sales and use tax transactions, are required to make a special report to the commission concerning each individual construction contract class "A", "B", "C" or "D" performed by it in Iowa, unless specifically relieved from doing so in writing by the commission, or its department handling these matters. [Filed December 27, 1956]

2. The report shall consist of the filing of the following listed forms and supplying the information therein requested:

3. Form ST-42. List of subcontractors, if any, to whom the nonresident contractor has awarded a construction contract, under the terms of which his sub is to furnish its own material and install same on the job site. The further information as to the amount of the subcontract, the type of subcontract and the date let should be indicated. This information should be submitted on each project as soon as the information is available.

4. Form ST-43. List of material suppliers, both in Iowa and outside of Iowa from whom tangible personal property has been purchased for use in completing the particular construction contract in question, which should include all structural materials and supplies, as well as the contractor's own tools or equipment used on the job site. The information on this form should show the type of merchandise purchased, the purchase price and whether or not Iowa sales tax or use tax was paid to the supplier at the time of purchase. If a sales tax or use tax, imposed by a foreign state, was paid at the time of purchase, the

name of the state should be listed together with the name and address of the supplier to whom the tax was paid, as well as the amount and type of tax.

5. Form UT-527 summary sheet of contract should be executed for each construction contract and which consists of a summary of the entire contract.

6. Form ST-43 and UT-527 should be filed by the construction contractor with the commission at the time of the filing of the final consumer use tax return on the particular contract in question.

7. The nonresident contractor is required to file quarterly use tax returns during the progress of the job, unless he has received permission in writing from the commission or its department handling such matters to file at the close of the job. (See rule No. 151 concerning special permission for reporting by the job.)

8. The construction contractor may at the close of the job request a letter of release, concerning sales and use tax, from the commission, the original of which will be sent to the sponsor and a copy to the construction contractor, provided, the required reports, returns and tax have been properly submitted. [Amendment filed December 27, 1956]

151 Use tax returns by contract job.

1. This commission, having considered the matter of certain contractors making use tax returns by contract jobs instead of by quarters, finds it necessary in some cases, in order to insure the payment to the state of the amount of such tax, to grant permission to make returns and file reports by the contract job instead of by quarterly periods. Such permission may be granted only where a contract is to be completely performed within six months. The retail sales and use tax division of this commission may grant, upon application of such contractors, permission to file use tax returns and remit the tax due on account of purchases made, as reported by said returns, for each and every job performed by such a lump-sum contractor instead of making use tax returns by quarterly periods. (See section 423.13.)

2. In cases where a contractor has obtained permission to make returns and file reports by the job instead of by the quarterly periods, the use tax payable to the state of Iowa shall be due immediately upon the purchase of tangible personal property upon which the law imposes such a tax. The use tax so imposed shall become delinquent thirty days after the contract shall have been completely performed or immediately in case of insolvency or bankruptcy of the contractor. [Amended October 10, 1958]

152 Payment of final estimate must be withheld. The sponsor of a construction contractor, class "A", "B", "C" or "D", if the latter is a nonresident of Iowa, as defined in rule No. 150, shall not make payment of the

final estimate due the contractor unless and until such sponsor shall have received a release from the retail sales and use tax division of this commission showing that the contractor performing such contract has paid all retail sales and use tax due to the state of Iowa and that all required forms, returns and reports have been made to this commission or the division of retail sales and use tax. [Amendment filed December 27, 1956]

153 Liability of sponsors for retail sales and use tax due the state from general and special contractors. A lien on personal property and rights to personal property is created by operation of law for retail sales and use taxes due the state of Iowa without the necessity of recording or the giving of any notice whatsoever.

154 Money due a contractor is a right to property. Money due a general or a special construction contractor is a right to personal property on which a lien attaches for any retail sales or use tax owing to the state.

155 Sponsors are required to withhold payment. Sponsors are required to withhold payment of the final estimate until the general or special construction contractor shall have secured a release from the retail sales and use tax division of this commission reciting that all required returns and reports have been made and that all taxes have been paid.

156 Liability of sponsors who fail to withhold payment. Sponsors who pay general and special construction contractors in full are liable to the state for the payment of any retail sales or use tax not collected from such a general or special construction contractor on which the law had imposed a lien in favor of the state.

157 Release of sponsors. Sponsors who withhold payment due the general or special contractors are released from any liability created by the lien laws of the state of Iowa when such a release in writing is secured from this commission.

158 Taxes paid by general or special construction contractors received subject to audit. A release to a sponsor does not operate as a final release to the general construction contractor, special construction contractor or construction subcontractors as all tax accounts are released subject to an audit of the taxpayer at any future date.

159 Liability of general construction contractors for retail sales and use tax due the state from subcontractors. A lien on personal property and rights to personal property is created by operation of law without the necessity of recording or the giving of any notice whatsoever for retail sales and use taxes due the state.

160 Money due a subcontractor is a right to the property. Money due a subcontractor is a right to personal property on which a lien

attaches for any retail sales or use tax owing to the state.

161 General construction contractors required to withhold payment. General construction contractors who pay subcontractors in full are liable to the state for the payment of any retail sales or use tax not collected from such subcontractor for the reason that such general contractor paid money to the subcontractor on which the law had imposed a lien in favor of the state.

162 Release of general contractors. General construction contractors who withheld payment due subcontractors are released from any liability created by the lien laws of the state of Iowa when such a release in writing is secured from this commission.

163 Taxes paid by subcontractors received subject to audit. A release to a general construction contractor does not operate as a final release of the subcontractor as all tax accounts are released subject to an audit of the taxpayer at any future date.

164 Iowa construction contractors must file certain reports.

1. Iowa construction contractors, who maintain a place of business in this state where complete records are kept concerning sales and use tax transactions, will not be required to file forms UT-527 and ST-43, concerning each construction contract in Iowa, unless specifically requested to do so by the commission or its department handling such matters.

2. However, Iowa construction contractors should file with the sales and use tax department form ST-42 whenever they sublet a construction subcontract to a nonresident subcontractor. This information should be submitted immediately the subcontract is let. The information shall include the name and out-of-state address of the subcontractor, the general nature of the work, the contract price and the date let, together with the name of the project where the subcontractor is to perform his contract.

3. The Iowa construction contractor shall file quarterly consumer's use tax returns, reporting and remitting any use tax due from him concerning all of his activities in the state of Iowa during the quarterly period covered by the return.

4. If the Iowa contractor desires to report and remit the use tax on the job basis, permission must be secured from the commission or its department as provided in rule No. 151.

165 Industrial materials and equipment not readily obtainable in Iowa are exempt to construction contractors under class "A", "B", "C" or "D".

1. The use tax law under part "c" of subsection 1 of section 423.1, Code of Iowa, exempts from the use tax "industrial materials and equipment, which are not readily obtainable in Iowa, and which are directly used in the actual fabricating, compounding, manufactur-

ing or servicing of tangible personal property intended to be sold ultimately at retail."

2. Construction contractors, including general, special and sub, under class "A", "B", "C" and "D", are consumers, under provisions of Rule No. 138.7, of all tangible personal property which they purchase for use in completing construction contracts in Iowa. Therefore, such construction contractors are not "processors" within the meaning of the use tax law and would therefore not be exempt from use tax on any tangible personal property purchased by them outside the state of Iowa for use in completing such construction contracts in the state of Iowa, even though the item involved might be "not readily obtainable in Iowa." [Filed December 27, 1956]

166 Rental equipment. [Rescinded as of April 3, 1957] [Amended August 5, 1958]

167 Contracts with federal, state or local governments. A construction contractor performing a class "A", "B", "C" or "D" construction contract for the United States government, the state of Iowa, counties, towns, school districts or any other political subdivision of the state of Iowa is not exempt from the payment of either the retail sales or use tax. Therefore, a contractor performing such a contract for any of the above-mentioned governments or governmental subdivisions or agencies must make such reports and returns of either the retail sales or use tax as is required for contracts with private sponsors. [Filed December 27, 1956]

168 A purchaser, who is a "processor" may be exempt from use tax when purchasing under a machinery or equipment sales contract with installation by the seller.

1. A purchaser who purchases machinery or equipment to be installed by the seller may be exempt from use tax, provided the machinery or equipment is directly used in the actual fabricating, compounding, manufacturing or servicing of tangible personal property intended to be sold ultimately at retail, and provided the sales transaction is one in interstate commerce, thus coming within the scope of the use tax law, and not coming within the scope of the retail sales tax law.

2. On the other hand, if the contract to furnish and install the machinery or equipment with installation by the seller is one in intrastate commerce, then the purchaser is not exempt from the payment of sales tax to his supplier, inasmuch as the transaction comes within the scope of the retail sales tax law and no exemption exists in the retail sales tax law because the item sold at retail in Iowa is "not readily obtainable in Iowa." (See use tax rule 172 A.)

168.1 Sales of building materials, supplies, equipment, etc., are at retail and taxable when sold to construction contractors, subcontractors, owners or builders.

Sales to or purchases by construction contractors or subcontractors, of building mate-

rials, supplies or equipment for the erection of building or the alteration, repair or improvement of real property are subject to the sales tax or use tax, whichever applies, even though the class of construction contract being performed is "CLASS (D)" as described in rule No. 138.6. In other words, the rules of the commission shall be applied to construction contractor's or construction subcontractor's purchases, where a "CLASS (D)" contract is being fulfilled, in the same manner and to the same extent as though a Class "A", "B" or "C" contract was being fulfilled.

Iowa suppliers selling such items to such constructors for such purposes shall bill and collect from them the sales tax and report and return same to the state.

Likewise, out-of-Iowa suppliers, who are required to collect *use tax* for the state, shall, when selling such items to such constructors for such purposes, bill and collect from such persons the Iowa use tax and return same to the state quarterly.

If a construction contractor or construction subcontractor (who does not hold a retail sales tax permit) purchases such items from an out-of-Iowa supplier who does not collect the Iowa tax, then such purchaser shall make a return (consumer's use tax return Form UT-510) directly to the state tax commission and remit the Iowa use tax thereon.

A person who is engaged exclusively in construction work as contractor or subcontractor is not required to hold a retail sales tax permit and such a permit should not be issued to such persons.

All such taxes on items hereinbefore mentioned shall be reported and paid *as indicated*, with the following exception, to wit: In some instances construction contractors or construction subcontractors are in a dual business, which includes substantial reselling on an "over the counter" basis the same type of building materials, supplies and equipment to others at retail in Iowa, as are used by them in their own construction work. We are in this rule referring to such persons as contractor-retailer. Because of the retail business ("over the counter" sales) such contractor-retailer is required to apply for and hold a retail sales tax permit. For the efficient administration of the statute and to simplify the accounting procedure in reporting and paying the tax in such instances, it is hereby provided that such contractor-retailer will be permitted to purchase all construction materials, supplies and equipment (for both purposes) tax-free, only provided he holds a valid retail sales tax permit and certifies in writing to this fact to his supplier, describing the permit number of such permit and certifying to the resale of such merchandise. Such buyers shall furnish such certificates to their suppliers and the suppliers shall secure and maintain such certificates to support the noncollection and non-payment of tax on such sales.

Purchases may be made, under the same circumstances, from out-of-Iowa suppliers, tax-free.

Of course, the contractor-retailer would then be required to report and return the tax on all the items (both construction and "over the counter") directly to the commission with his quarterly sales tax return on the basis of his cost as to items consumed by him in construction and on the basis of the selling price on "over the counter" items.

Tax must be paid by the contractor-retailer to his supplier, when purchasing *his own* tools, equipment, etc., or for his employees. [Filed December 27, 1956]

169 When machinery or equipment sales contract with installation by seller is in interstate commerce and when in intrastate commerce.

1. When a seller agrees to furnish and install machinery or equipment in Iowa and where the offer and acceptance take place within the state of Iowa, the transaction will be regarded as a local intrastate sale, the receipts therefrom being subject to retail sales tax, if the sale is at retail and not otherwise expressly exempted by the retail sales tax law.

2. When a seller contracts to furnish and install machinery or equipment in Iowa and the offer and acceptance take place outside the state of Iowa, but the property is located in the state of Iowa prior to the agreement to sell, then the contract will be considered one in intrastate commerce, the receipts from which are subject to retail sales tax, provided, the sale is at retail in Iowa and not otherwise expressly exempted by the provision of the retail sales tax law.

3. Where the seller contracts to furnish and install machinery or equipment in Iowa and the offer and acceptance take place outside the state of Iowa, but the title to the property does not pass to the buyer outside the state of Iowa, but passes to the buyer upon installation in Iowa by the seller, then the transaction shall be regarded as a sale in intrastate commerce, the receipts therefrom being subject to the retail sales tax law, if the sale is at retail in Iowa and not otherwise expressly exempted by the provisions of the retail sales tax law.

4. Where the seller contracts to furnish and install machinery or equipment in Iowa and the offer and acceptance take place outside the state of Iowa and the title to the property passes to the buyer outside the state of Iowa, then the transaction will be regarded as a sale in interstate commerce and the receipts therefrom to be exempted from the retail sales tax law. On the other hand, this transaction will be regarded as one coming within the scope of the use tax law and the provisions of the use tax law and rules of the commission pertaining thereto shall apply.

PART III
USE TAX

Rules Nos. 170 to 198, Inclusive

170 Applies to use tax only. **General statement concerning the application of the use tax law.** The use tax law imposes a tax on the purchaser for the privilege of using tangible personal property in the state of Iowa, where the property used in Iowa was not sold in Iowa subject to the sales tax law, with express exemptions. Generally speaking, this means that a person who purchases tangible personal property from out-of-state suppliers for "use" in Iowa and not for "resale" or "processing" is liable for the payment of use tax. The measure of the use tax is two percent of the purchase price.

The purchaser for "use" should pay the use tax to the seller, if the seller is registered with the commission and authorized to collect the use tax for the state. If the seller is not registered with the commission and authorized to collect the use tax for the state, the purchaser should remit the use tax directly to the commission.

The consumer's use tax return blank, Form UT-510, is the proper form for the purchaser to use in reporting and remitting the use tax directly to the commission, unless the purchaser happens to be the holder of a certificate of registration under the use tax law and files retailer's use tax returns, under which last instance the value of the property used or consumed may be shown and reported under Item 4 of the retailer's use tax return blank, Form UT-511.

Under the use tax law, a collection responsibility is placed upon all interstate sellers who sell tangible personal property for delivery in Iowa for "use" in Iowa, provided the seller maintains in the state directly or through subsidiary a warehouse, sales office, or distribution house, or other place of business, or has an agent operating in the state either temporarily or permanently. Such a seller is required to apply for (on Form UT-507) and hold a certificate of registration under the use tax law and file retailer's use tax returns (UT-511). Each registered seller is required to bill its Iowa customers for all use tax due, showing the use tax as a separate item on the invoice and indicating thereon its registration number.

An exception from the general provisions hereinbefore stated is in the case of new motor vehicles and new trailers. The receipts from the sale at retail in Iowa of new motor vehicles and new trailers are expressly exempted from the sales tax. The law imposes use tax on new motor vehicles and trailers. The use tax law provides that county treasurers and the state motor vehicle department be charged with the responsibility of collecting two percent of the full purchase price of new motor vehicles and new trailers for "use" in Iowa as use tax, before issuing auto registration plates. The county treasurers and state

motor vehicle department also collect use tax due where cars previously bearing foreign registration plates are registered for "use" in Iowa.

For further information as to the collection of use tax on motor vehicles and trailers, see Part IV, rules Nos. 199 to 234.

171 Applies to use tax only. **"Use" defined.** "Use" is defined in subsection 1 of section 423.1, Code of Iowa, 1946. In substance, a taxable use is the exercise of any right of ownership over tangible personal property in Iowa, by any person owning the property, except the right to sell the property in the regular course of business and the right to process or manufacture the property into another article of tangible personal property intended to be sold ultimately at retail, subject to exemptions.

"Processing" of property is defined by this section to include: Personal property which forms an integral or component part of the manufactured product which is intended to be sold ultimately at retail; that property which is consumed as fuel in creating power, heat or steam for processing or for generating electric current; that property which is used as industrial material and equipment (which does not form a component or integral part of the manufactured product) but which is *directly* used in the actual fabricating, compounding, manufacturing or servicing of tangible personal property intended to be sold ultimately at retail, provided such property is not readily obtainable in Iowa.

Persons who are using tangible personal property in the state of Iowa, within the meaning of "use," are expressly exempted from use tax if the property has been subjected to the Iowa retail sales tax law.

Section 423.1

172 Applies to use tax only. **Definitions.** **"Readily obtainable in Iowa"—"servicing of tangible personal property intended to be sold ultimately at retail."** An exemption from use tax is provided by part "c" of subsection 1 of section 6943.102, Code of Iowa, 1939 [§423.1, C.50] which reads as follows: "industrial materials and equipment, which are not readily obtainable in Iowa, and which are directly used in the actual fabricating, compounding, manufacturing or servicing of tangible personal property intended to be sold ultimately at retail."

Two questions in this part require interpretation. First, the words "not readily obtainable in Iowa" as used in the law.

Second, the words "servicing of tangible personal property intended to be sold ultimately at retail" as used in the law.

With respect to "not readily obtainable in Iowa," a similar exemption does not appear in the Iowa retail sales tax law. Therefore, an Iowa retailer making sales in the state of Iowa at retail is required to pay sales tax on such sales.

The commission holds that, where industrial materials and equipment of the same general classification are offered for sale in Iowa, such material and equipment cannot be considered "not readily obtainable in Iowa" and therefore would not be entitled to use tax exemption when purchased in interstate commerce from points outside the state.

Quantity available, price element, or purchaser's preference for a particular brand or manufacture are not proper factors in determining the "readily obtainable" question.

The personal property use tax law, in addition to being a revenue law, is intended to serve as a complementary statute to our retail sales tax law, thereby placing the Iowa retailer selling tangible personal property in this state on a fair competitive basis with the out-of-state seller making sales for delivery in Iowa, insofar as the excise tax is concerned. In determining the "readily obtainable" exemption of a given article, it should be ascertained whether or not similar property within the same general classification could be purchased from a distributor or retailer in Iowa, notwithstanding the fact that such property might be of a different brand or manufacture. Where similar equipment of a different brand or manufacture can be secured through distributors or retailers in Iowa all property within the same general classification is to be considered readily obtainable in Iowa and therefore not exempt from use tax.

The words "servicing of tangible personal property intended to be sold ultimately at retail" as used in this law, means something done to the property by a manufacturer or processor during the manufacturing state, which changes it and puts it in shape for distribution and sale.

This phrase does not mean anything done to the property manufactured, in connection with its distribution and sale after the property shall have been manufactured. It means some act done or performed on the property itself during the manufacturing process.

NOTE: (This rule 172 was a part of the 1942, 1945 and 1946 regulations.)

172A Definitions. "Readily obtainable in Iowa"—"servicing of tangible personal property intended to be sold ultimately at retail." Part "c" of subsection 1 of section 423.1, Code of Iowa, which is a part of the use tax law, in part defines the term "use" and provides as follows:

"... industrial materials and equipment, which are not readily obtainable in Iowa, and which are directly used in the actual fabricating, compounding, manufacturing, or servicing of tangible personal property intended to be sold ultimately at retail" which, in effect, exempts from use tax such industrial materials and equipment so used."

The 1949 legislature amended the use tax law by enacting a law known as chapter 193, Acts of the 53rd General Assembly, section

2 (in part) and section 3 thereof being hereinafter set forth:

"Sec. 2. Amend section four hundred twenty-three point one (423.1) by adding at the end thereof the following:

"10. 'Readily obtainable in Iowa' shall mean kept in Iowa for sale or manufactured in Iowa for sale as distinguished from being obtainable by giving an order to an agent in Iowa for delivery from some point outside the state of Iowa.

"Sec. 3. The provisions of this Act shall be applicable hereafter beginning with the quarter ending June 30, 1949, and every return and payment for said quarter shall be under the provisions of this Act."

It is the commission's interpretation of the foregoing amendment, that an item is readily obtainable in Iowa, only:

a. When normally carried as a stock item in Iowa for sale, irrespective of quantities, or,

b. When the item is manufactured in Iowa for sale, irrespective of quantities, or,

c. When an item acquired outside of Iowa, but not stocked or manufactured in Iowa, is fairly and reasonably competitive to an item which is stocked in Iowa for sale or manufactured in Iowa for sale.

Whether an item is fairly or reasonably competitive with an outside item is a fact question to be determined from time to time as the occasion arises. Price element is not to be considered as a factor in determining whether or not an item is readily obtainable in Iowa.

It is here pointed out that an item "not readily obtainable in Iowa" is not exempt from use tax for that reason alone but at the same time must be an item which falls within the category of "industrial materials and equipment, which are directly used in the actual fabricating, compounding, manufacturing or servicing of tangible personal property intended to be sold ultimately at retail." In other words the "not readily obtainable in Iowa" item must be directly used in processing tangible personal property intended to be sold ultimately at retail as the term is defined in the statute, to be free from tax.

However, due to the provisions of a different section of the use tax law (subsection 5 of section 423.4) there is exempt from use tax:

"Tangible personal property not readily obtainable in Iowa and used in the operation of street railways" (which means and includes urban transportation systems). (See paragraph 11 of section 2, chapter 193, Acts of 53rd General Assembly.)

"Servicing of tangible personal property intended to be sold ultimately at retail", as used in this law, means something done to the property by the manufacturer or processor during the manufacturing process, which changes it and puts it in shape for distribution and sale. This phrase does not mean anything done to the property manufactured in connection with

its storage, distribution and sale after the property shall have been manufactured.

This rule 172A replaces and modifies rule 172 as found in the pamphlet of regulations issued by the commission as of August 17, 1945, and any modifications or changes herein inconsistent with rule 172 shall be effective as of April, 1949. The commission's rule of June 15, 1949, pertaining to this subject is hereby rescinded.

The provisions of this rule 172A have application only to transactions coming within the scope of the use tax law and have no application to transactions coming within the scope of the retail sales tax law.

The foregoing rule 172A is hereby adopted this fifteenth day of February, 1950. [Amended August 5, 1958]

173 Applies to use tax only. Use tax law became effective in Iowa, April 16, 1937. Persons who "use" tangible personal property in the state of Iowa who purchased such property on or after April 16, 1937, are liable for the payment of use tax on the same, unless expressly exempted. Persons who "use" tangible personal property in the state of Iowa which they have purchased prior to April 16, 1937, are not liable for the payment of use tax.

Section 423.2, section 423.3

174 Applies to use tax only. Measure of the use tax. The measure of the use tax is two percent of the purchase price.

Purchase price means the total amount for which tangible personal property is sold, valued in money, whether paid in money or otherwise; provided that cash discounts allowed and taken on sales shall not be included.

Where a manufacturer used tangible personal property in this state, fabricated or manufactured by the manufacturer outside the state, the measure of use tax shall be two percent of the manufacturer's cost of production.

Section 423.1

175 Applies to use tax only. Consumer's use tax return. A person who purchases tangible personal property from out-of-state sources for use in Iowa subject to the use tax law is liable for the payment of the use tax and is required to file a consumer's use tax return, Form UT-510, with the commission, reporting and remitting use tax on all property which has been delivered into Iowa during the quarterly period covered by the return unless the seller from whom he made the purchase is registered with the commission and authorized to collect the use tax for the state. Under the last circumstances the use tax should be paid by the purchaser to the registered seller, which seller in turn forwards the use tax to the commission quarterly.

The purchaser may ascertain when the seller is registered and authorized to collect the use tax for the state by inspecting the billing or invoice, inasmuch as the registered seller is required to show the Iowa use tax separately on the invoice together with his Iowa registration number.

The use tax imposes at the time the tangible personal property comes to rest in this state and is required to be reported at the close of that quarterly period during which it comes to rest. The measure of the use tax is two percent of the full purchase price, valued in money, whether paid for in money or otherwise. This means that where property is traded in as part consideration of the purchase price, the tax shall be computed on the full selling price before any amount is deducted for property traded in.

The quarterly periods for the year end on March 31, June 30, September 30, and December 31. A full month is allowed after the close of each quarterly period in which to file a consumer's use tax return before becoming delinquent. Penalties are imposed if the tax is not paid before the last day of the month following the close of each quarterly period.

For the convenience of those persons who regularly purchase tangible personal property outside the state subject to the use tax, the commission places such names upon its permanent mailing list, at the request of the taxpayer, in order that the taxpayer may receive a consumer's use tax return blank at the close of each quarterly period.

Those persons who may only occasionally purchase tangible personal property outside the state, concerning which use tax would be due, and who do not wish to be placed on the mailing list for the reception of a consumer's use tax return blank at the close of each quarterly period will be required to make a special request for such blanks when tax is due. The request may be made to the commission at Des Moines or to any of the commission's field agents. [Amended October 10, 1958]

See UT Form No. 510 in section V.

176 Applies to use tax only. Purchases made on a conditional sales basis. When a person is making a return of purchase made on a conditional sales contract and there remains an unpaid balance thereon, such return shall include tax computed at the rate of two percent on the full purchase price of such property notwithstanding the fact that there is an unpaid balance.

177 Applies to use tax only. Exemptions. Chapter 423, Code of Iowa, known as the use tax law, contains the following exemptions:

See section 423.4

177.1 Applies to use tax only. Exemption of tangible personal property in interstate transportation or interstate commerce. [Rescinded on June 30, 1952]

177.2 Purchases by pipe-line companies. [Rescinded on June 30, 1952]

177.3 Purchases by radio broadcasters—video telecasters. [Rescinded on June 30, 1952]

178 Applies to use tax only. Sales tax or use tax paid to another state. Section 423.25,

Code of Iowa, 1946, provides that where an article of tangible personal property has been subjected to tax with respect to its sale or its use by another state equal to the amount of tax imposed by the Iowa use tax law, no further tax shall be due the state of Iowa with respect to the use of that property in this state by the person who has paid said tax to another state.

If the amount of tax paid by a person to another state on a given article of tangible personal property is less than the amount of tax imposed by the Iowa use tax law, the tax shall be due the state of Iowa in the amount of the difference of tax so paid to the foreign state and the tax due under the Iowa law.

Persons claiming exemption from payment of use tax on the grounds that they have paid tax to another state with respect to the sale or use of the property in question must prove to the satisfaction of the commission, the county treasurer, or the state motor vehicle department that such tax has been paid.

Section 423.25.

179 Applies to use tax only. Persons having books or other tangible personal property belonging to them repaired by repairmen located outside the state of Iowa. Persons who own tangible personal property in the state of Iowa and who send such property or cause such property to be sent outside the state for the purpose of having it repaired, reconditioned, or altered, and where the repairman uses tangible personal property in connection with the repair thereof, the owner will be liable for the payment of use tax measured by two percent of the full charge made for the repair service, unless the out-of-state repairman bills such person as separate items the charges made for labor and those made for material furnished, in which last instance the tax may be computed on two percent of the charge made for the tangible personal property furnished by the repairman.

180 Interstate commerce. 1. Goods coming into this state.

When tangible personal property is purchased in *interstate commerce* for use or consumption in this state and (1) the seller is engaged in the business of selling such tangible personal property in this state for use or consumption and (2) delivery is made in this state, such sale is subject to the use tax law. Such sale is taxable regardless of the fact that the purchaser's order may specify that the goods are to be manufactured or procured by the seller at a point outside this state and shipped directly to the purchaser from the point of origin, and the seller is required to report all such transactions and collect and remit to this state the use tax on all taxable purchases.

If the conditions above are met it is immaterial (1) that the contract of sale is closed by acceptance outside the state or (2) that the contract is made before the property is brought into the state.

Delivery is held to have taken place in this state (1) when physical possession of the tangible personal property is actually transferred to the buyer within this state or (2) when the tangible personal property is placed in the mails at a point outside this state directed to the buyer in this state or placed on board a carrier at a point outside this state (or otherwise) and directed to the buyer in this state.

Engaging in business in this state shall include any of the following methods of transacting business: Maintaining directly, indirectly or through a subsidiary, an office, distribution house, sales house, warehouse or other place of business or by having an agent, salesman or solicitor operating within the state under the authority of the seller or its subsidiary irrespective of whether such place of business, agent, salesman or solicitor is located in this state permanently or temporarily or whether such seller or subsidiary is qualified "to do business in this state."

2. Goods shipped from this state.

When tangible personal property is sold within the state and the seller is obligated to deliver it to a point outside of the state or to deliver it to a carrier or to the mails for transportation to a point outside the state, the retail sales tax or use tax does not apply, provided that the property is not returned to a point within the state. The most acceptable proof of transportation outside the state will be:

a. A waybill or bill of lading made out to the seller's order and calling for delivery; or

b. An insurance receipt or registry issued by the United States postal department, or a post-office department receipt Form 3817; or

c. A trip sheet signed by the seller's delivery agent and showing the signature and address of the person outside this state who received the goods delivered.

However, where tangible personal property pursuant to a sale is delivered in this state to the buyer or to an agent of his, the retail sales tax applies notwithstanding that the buyer may subsequently transport the property out of the state. [Amended August 10, 1962]

See rule No. 55.

181 Applies to use tax only. Interstate vendors—registration and billing of tax. Each "retailer maintaining a place of business in this state" as defined in subsection 6 of section 423.1, Code of Iowa, shall, before collecting the use tax required to be collected, make application to the commission for a certificate of registration upon Form UT-507-A, to be provided by the commission. Each certificate of registration issued bears an individual number, the number appearing immediately above the registrant's name on the certificate. The holder of the certificate shall bill the use tax due as a separate item on the billing or invoice to the purchaser for "use" in Iowa and indicate thereon his registration number. This evi-

dence in the hands of the purchaser who remits use tax to the registered seller shall constitute such purchaser's receipts for the tax having been so paid. The billing shall be in substantially the form as shown hereafter:

MERCHANDISE \$.....
 2% IOWA USE TAX \$.....
 IOWA REGISTRATION NO.

See form "certificate of registration" in section V.

Section 423.9

182 Interstate vendor's application for certificate. The interstate vendor's application for certificate of registration under the use tax law shall show the name of the person to whom the certificate is to be issued; the address of the location from which the returns thereunder are to be filed; the names and addresses of the officers in the case of a corporation; the names of all partners in the case of a partnership; the name of the owner in the case of an individual ownership; the date when the applicant (as "retailer maintaining a place of business in this state") began selling tangible personal property in interstate commerce for delivery in Iowa for "use" in Iowa subject to the use tax law; the names and addresses of all offices, warehouses, or other places of business in Iowa either owned or controlled by the applicant or its subsidiary; the names and addresses of all agents of the applicant operating in the state either temporarily or permanently; the names and addresses of all out-of-state locations from which tangible personal property will be delivered into Iowa for "use" in Iowa from which billing for the merchandise will be made.

It will not be necessary that more than one certificate be held in order to report and remit all use tax due, even though shipment and billings may be made from several out-of-state locations. However, if desired, the commission, when practicable, will issue more than one certificate of registration to the same person for separate out-of-state locations.

Section 423.9

183 Applies to use tax only. Registered retailers required to collect all use tax due on all tangible personal property sold for delivery in Iowa. Each retailer registered with the commission under the provisions of section 423.9 of the use tax law and each retailer registered and authorized to collect the use tax under the provisions of section 423.10 of the use tax law shall collect from his customer and remit to the commission all use tax due on all tangible personal property sold for delivery in Iowa by the retailer, unless the commission shall expressly authorize the retailer to do otherwise.

Section 423.5

183.1 Applies to use tax only. Vendors, authorized or required to collect Iowa use tax for the state, when selling tangible personal property to railroads for use in Iowa. With respect to railroads operating in Iowa who

also operate in states other than Iowa, the Iowa state tax commission hereby authorizes and requires these to report and remit all use tax due the state of Iowa directly to the state on a quarterly basis, as provided by law, rather than through registered retailers authorized and required to collect use tax for the state.

A specific written authorization will be issued by the use tax division with proper numerical designation to railroads who are operating in other states, as well as Iowa, and a photostatic copy of same shall be furnished to its vendors by each concerned railroad to whom such an authorization has been issued, when it purchases from vendors collecting Iowa use tax. The collecting vendor shall retain said authorization copy as a part of its records and shall then omit the billing and collection of Iowa use tax from such accounts, so long as the authorization is effective.

However, each registered retailer shall attach to each of its retailers use tax returns to Iowa, a schedule listing the amount of sales in dollars and the authorization number of those railroads to whom it sold and from whom it did not collect and remit the Iowa use tax.

These authorizations and the above-described handling shall have no application to sales made subject to the Iowa retail sales tax law, where the seller must return and remit the due sales tax directly to the state.

The right is reserved to cancel these authorizations upon reasonable notice.

The provisions of this rule shall be effective as of January 1, 1962. [Filed and indexed January 10, 1962]

Sections 423.6, 423.10, 423.13, 423.14, 423.23

184 Applies to use tax only. Retailer's use tax returns. Retailer's use tax return blanks, Form UT-511, are furnished to each holder of a certificate of registration at the close of each quarterly period consisting of three months, for the taxpayer's use in reporting and remitting use tax due for the preceding quarterly period. The quarterly periods for the year end on March 31, June 30, September 30, and December 31. The full month which next follows the quarterly period is allowed in which to file returns and remit tax without becoming delinquent, unless the commission shall otherwise provide.

Retailer's use tax return blanks are not furnished to persons who do not hold a certificate of registration under the use tax law, for the purpose of filing with the commission. Registration is necessary before retailer's use tax return blanks for filing are furnished.

If the certificate holder uses or consumes tangible personal property in the state of Iowa subject to the use tax law, the value of such purchases made during a given quarterly period should be included under Item 4 of return blank UT-511.

purpose of resale; that the undersigned is solely engaged in selling tangible personal property at wholesale and does not sell to final consumers, and therefore, does not hold a Retail Sales Tax Permit.

.....
Address of Purchaser Signature of Purchaser

UT-3 CERTIFICATE OF PROCESSING
(By processor selling at retail)
(Component part material)

The undersigned hereby certifies that the tangible personal property purchased from ...
..... is to be used
(Name and Address of Seller)

in the fabricating, compounding, manufacturing, or germination of other tangible personal property intended to be sold ultimately at retail, and that said property will form an integral part of the property sold; that the undersigned holds Retail Sales Tax Permit No.

.....
Address of Purchaser Signature of Purchaser

UT-4 CERTIFICATE OF PROCESSING
(By processor not selling to final consumer)
(Component part material)

The undersigned hereby certifies that the tangible personal property purchased from ...
..... is to be used
(Name and Address of Seller)

in the fabricating, compounding, manufacturing, or germination of other tangible personal property intended to be sold ultimately at retail and that said property will form an integral part of the property sold; that the undersigned is not engaged in selling tangible personal property at retail in Iowa and, therefore, does not hold a Retail Sales Tax Permit.

.....
Address of Purchaser Signature of Purchaser

UT-5 CERTIFICATE OF PROCESSING
(Industrial materials and equipment)
(Not component part material)

The undersigned hereby certifies that the tangible personal property purchased from ...
..... is to be used
(Name and Address of Seller)

as industrial materials and/or equipment; that said property will not form an integral or component part of other tangible personal property intended to be sold ultimately at retail, but that said property will be directly used by the undersigned in the actual fabricating, compounding, manufacturing or servicing of tangible personal property intended to be sold ultimately at retail; that said property, or similar property for use for a similar purpose, is not readily obtainable in Iowa; that the undersigned is engaged in the business of ...

.....
Description of Purchaser's Business
.....
Address of Purchaser Signature of Purchaser

188 Applies to use tax only. Registered retailers selling tangible personal property on a conditional sales contract basis. Retailers registered with the commission and authorized to collect the use tax for the state when selling tangible personal property for delivery in Iowa

for "use" in Iowa on a conditional sales contract basis, where the payment of the principal sum or a part thereof is extended over a period longer than sixty days, may collect from the consumer and report to the commission the use tax on those payments due during the quarterly period covered by the return, provided the retailer carries on his return as a deduction, the outstanding unpaid balance of conditional sales contracts for which he has not remitted the use tax.

It is pointed out that the law provides that the retailer may report on a collection basis; however, at his option, the retailer may also report and remit on a total sales basis, in which case he is entitled to bill his customers and collect therefrom the use tax computed on the full purchase price as a part of the first installment, under which circumstances the retailer must report and remit to the commission the full amount of the tax computed on the full selling price in the return for the quarterly period during which the sale and delivery was made.

Section 423.13

189 Applies to use tax only. Trade-ins may not be deducted before computing the amount of tax. Trade-ins subject to use tax when sold in interstate commerce for "use" in Iowa. When property is traded in as part payment of the purchase price of other tangible personal property, the amount allowed for the trade-in shall not be deducted from the amount on which the use tax is computed. The use tax is computed on the full purchase price before any amount allowed for trade-in is deducted.

Where tangible personal property is accepted as part payment concerning the sale of other tangible personal property made in interstate commerce for delivery in Iowa for "use" in Iowa, the traded-in property is subject to use tax if and when it is sold in interstate commerce for delivery in Iowa for "use" in Iowa.

190 Applies to use tax only. Sellers of subscriptions to magazines and periodicals. Sellers of subscriptions to magazines and periodicals who solicit such subscriptions in Iowa as sales agents or representatives are deemed to be retailers and are required to procure a retail sales tax permit and pay sales tax on all orders procured, unless the person for whom sales are being made is a permittee under the provisions of the sales tax law or is legally registered with the commission to collect and pay use tax.

191 Applies to use tax only. Purchases by telephone companies. [Rescinded on June 30, 1952]

192 Applies to use tax only. Purchases by federal government—state of Iowa—political subdivisions of the state, including counties, cities, towns, school districts, etc. The state of Iowa and state institutions as well as the federal government and federal institutions are

not required to pay the use tax when purchasing tangible personal property directly for use in Iowa.

Also, all tax certifying or tax levying bodies of Iowa or governmental subdivisions thereof are, beginning July 4, 1953, exempted from sales tax or use tax concerning all purchases used for public purposes, EXCEPT purchases used by or in connection with the operation of any municipally-owned public utility, engaged in selling gas, electricity or heat to the general public, the latter being subject to tax on the same basis and subject to the same rules as such a business would be if privately operated.

Beginning with sales of tangible personal property made on and after July 1, 1947, vendors registered to collect use tax shall omit the billing and collection of Iowa use tax when selling to ANY TAX CERTIFYING OR TAX LEVYING BODY OF IOWA OR ANY GOVERNMENTAL SUBDIVISION thereof.

This has no application to retail sales tax, in the event sales are made subject to the retail sales tax law, but applies to USE TAX only.

Listed below are TAX CERTIFYING OR TAX LEVYING BODIES OF IOWA AND GOVERNMENTAL SUBDIVISIONS, for the purpose of explanation and which may not be all-inclusive:

Counties	Rural independent
Cities	school districts
Towns	County and municipal
Townships	hospitals
Township schools	Public libraries
Public schools	Consolidated school
Independent school districts	districts

Municipally-owned utilities will remit use tax due directly to the commission. [Amendment filed August 19, 1954]

See rules 50.1 and 192.1.

192.1 Consumers purchasing from the federal government or any of its agencies subject to use tax. Consumers purchasing tangible personal property, for "use" in Iowa, from the federal government or any of its agencies, on or after April 12, 1945, are liable for the payment of Iowa use tax.

The exception from the foregoing is as follows:

1. Purchases by counties or municipal corporations, from the federal government or any of its agencies, where the tangible personal property purchased is located in the state of Iowa at the time of purchase, are not subject to the use tax.

2. Consumers purchasing from the federal government or any of its agencies, industrial materials and equipment which are ordinarily not readily obtainable in Iowa from other sources, are exempted from the use tax when such industrial materials and equipment are directly used in the actual fabricating, compounding, manufacturing or servicing of tangible personal property intended to be sold ultimately at retail.

Since April 16, 1937, persons, including counties and municipal corporations, purchasing tangible personal property from the federal government or any of its agencies, for "use" in Iowa, which property was located outside the state of Iowa at the time of purchase, were liable for its payment of use tax and are still subject to use tax on such purchases so made.

Section 422.44, section 423.3.

193 Applies to use tax only. Penalties for late filing of use tax returns. Use tax returns are required to be filed on or before the last day of the month following the close of the quarterly period for which the return is filed.

If the return is filed after the last day of the month following the close of the quarterly period, five percent of the net tax is imposed as penalty for late filing. For each additional month of delay, one percent is added to the five percent penalty for the first month. [Amended August 5, 1953]

Section 423.18.

194 Applies to use tax only. Registered vendors repossessing goods sold on conditional sale contract basis. Where a retailer, who is registered with the commission and authorized to collect the use tax for the state, repossesses tangible personal property which has been sold on a conditional sales contract basis concerning which the retailer has remitted use tax to the commission on the full purchase price, the retailer may take a deduction on his retailer's use tax return during the quarterly period in which the goods were repossessed in an amount equal to the credit allowed to the purchaser's account for the goods returned, provided the retailer returns to the purchaser the use tax at the rate of two percent of the unpaid balance. If the purchaser does not claim use tax from the registered seller on the unpaid balance and the registered seller does not return to the purchaser the use tax on the unpaid balance, the registered seller may not take a deduction on his retailer's use tax return for the returned goods.

195 Applies to use tax only. Fuel which is consumed in creating power, heat, or steam for processing or for generating electric current. Tangible personal property purchased outside the state and consumed in creating power, heat, or steam for processing of tangible personal property intended to be sold ultimately at retail or for generating electric current, is exempt from use tax by the provisions of section 423.1, Code of Iowa. If the property purchased to be consumed as fuel in creating power, heat, or steam for processing is also used in the heating of the factory or office or for ventilating the building or for lighting the premises or for any use other than that of direct processing, that portion of the property so used is subject to the use tax, and that part of the property directly used in the processing is exempt from use tax.

The purchaser when buying tangible per-

sonal property part of which is exempt as fuel under the provisions of the law should, when purchasing from an out-of-state seller registered and authorized to collect the use tax for the state, furnish to such registered seller a written certificate certifying as to the value of the property which is to be used for processing and therefore exempt, and also the value of the property which is not to be used in processing and is therefore taxable, in order that the registered seller may properly bill the amount of use tax due.

See also rule No. 25.

Section 423.1

196 Applies to use tax only. **Federal manufacturers' or retailers' excise taxes may be excluded from the amount on which the use tax is computed, upon certain conditions.** The manufacturer who manufactures tangible personal property and who pays a federal manufacturers excise tax to the federal government with respect to the sale of that property may, when selling directly to users or consumers in the state of Iowa, exclude the amount of federal tax when computing the Iowa use tax, provided the federal excise tax is set out separately on the billing or invoice to the consumer customer.

The dealer who buys tangible personal property from a manufacturer, which manufacturer has paid a federal manufacturers excise tax concerning the sale to the dealer, may not exclude the federal manufacturers' excise tax from the amount on which the use tax is computed even though the dealer purchasing for resale from the manufacturer and selling to the consumer should show the manufacturers excise tax separately on the billing to his consumer customer. The federal manufacturers excise tax is a part of the dealer's cost of merchandise and is lost when the dealer fixes his selling price to the consumer.

Persons selling furs, jewelry, and toilet preparations to consumers in Iowa in connection with which sales they are required to pay a federal retailers excise tax may exclude the amount of federal retailers tax before the Iowa use tax is computed, provided the federal retailers excise tax is separately shown on the billing to the consumer customer and proper records are maintained.

197 Applies to use tax only. **Claim for refund of use tax.** Claims for refund of use tax must be made upon forms provided by the commission for such purposes (Form UT-513). Each claim for refund shall be filed in duplicate with the commission, fully executed and clearly stating the facts and reasons upon which the claim for refund is based and sworn to in the presence of a notary public or clerk of district court.

The use tax will be refunded only to those persons who have remitted the tax directly to the commission except use tax having been paid to the county treasurer or to the state motor vehicle department with respect to

motor vehicles will be refunded, upon proper showing, directly to the person paying the tax to the county treasurer or state motor vehicle department.

Section 423.23, of the Code, which is a part of the use tax law, incorporates by reference section 422.66, Code of Iowa, which provides as follows:

See Form UT-513 in section V.

Section 422.66.

198 Out-of-state dental laboratories. Out-of-state dental laboratories registered with the commission for the collection of the use tax may, when furnishing "repair work" to Iowa dentists, remit the use tax on the same basis as does the Iowa dental laboratory under the provisions of rule No. 131.

PART IV

COLLECTION OF USE TAX

By County Treasurers and by the State
Motor Vehicle Department on Motor
Vehicles and Trailers

Rules No. 199 to 234, inclusive

199 Applies to use tax only. **Use tax on motor vehicles.** Imposition of use tax, see Code section 423.2. Also see Code section 423.7.

From the law [section 423.7] it is clear that it is the duty of the county treasurer to collect the use tax on automobiles, trucks and trailers when first registered in the state of Iowa. County treasurers should not accept affidavits of exemption unless the claim of exemption is clearly within the provisions of one of the exemptions set forth on affidavit forms UT-503, UT-503A, UT-515 or UT-626A, except as hereinafter provided. [Amended August 5, 1958]

200 Used vehicles. Code section 423.7 refers to new motor vehicles and new trailers. Authority for the collection of use tax on used motor vehicles and trailers by the county treasurer is found in this rule and subsection five of section 422.64.

By virtue of the authority granted in the above subsection, the commission does hereby authorize and direct county treasurers to collect use tax upon each used motor vehicle and used trailer registered in Iowa for the first time unless such vehicles come within exemptions mentioned herein.

Section 422.64 is made a part of the use tax law by reference thereto in section 423.23.

200.1 Bicycles with attached motors. Where a motor on which the tax has been paid is attached to a bicycle on which the tax has been paid and the resultant motor vehicle is registered with the treasurer as required by law, such motor vehicle shall be exempt from tax. Therefore, the applicant for registration should prepare an affidavit stating the facts and file that affidavit with the county treasurer, or in the event the county treasurer has required the applicant for registration to pay the tax, then a claim for refund should be made stating the correct facts of the case.

201 Applies to use tax only. **County treasurers' monthly reports.**

The law, Code section 423.7, provides that county treasurers shall collect use tax on new motor vehicles and new trailers before such motor vehicles or trailers shall be registered by the county treasurer, said section also provides that the county treasurer shall on or before the tenth day of each month remit the tax collected to the commission.

The county treasurer shall make reports on forms furnished by the commission and such reports shall be made as follows:

On page 1 of the county treasurer's monthly report of use tax collections and exemptions, shall be listed each new or used motor vehicle for which registration was issued and which has been exempt from use tax by reason of an affidavit accepted by the county treasurer. In addition thereto, motor vehicles purchased outside the state of Iowa, where the purchase price has been established by the execution of affidavit number UT-515, shall be listed. The tax shall be reported and remitted for each motor vehicle registered where the tax applies. In each case where the tax does not apply, the original affidavit made by the purchaser must accompany the county treasurer's monthly report to explain the exemption.

Code section 423.7 provides that the use tax report shall be forwarded on or before the tenth day of the month following the month in which the tax was collected.

Each motor vehicle and trailer, whether new or used, which is registered for the first time in Iowa, and each motor vehicle and each trailer registered or purchased in a state other than Iowa the year preceding its registration in this state, is taxable, provided such a motor vehicle or trailer was purchased by the applicant on or after the sixteenth day of April, 1937. Use tax must be collected before the county treasurer issues registration plates, unless a legal reason for exemption from payment of the use tax is shown to exist. No exemption from use tax shall be allowed unless the applicant clearly proves the right to such an exemption. The burden of proof is on the applicant.

Whenever a legal reason for exemption from use tax is proven, such exemption must be claimed and verified by a return of information in the form of an affidavit which states the facts on which claimant relies for such exemption. Each affidavit must be in duplicate, the original copy thereof being forwarded to the commission with the county treasurer's monthly report; the duplicate shall be retained by the county treasurer for his files.

Section 423.6, section 423.7.

202 Applies to use tax only. **Rate of use tax.** Use tax is imposed at the rate of two percent of the total delivered price of the motor vehicle or trailer. The total delivered price shall include freight and manufacturer's tax as well as all additional accessories, such as

radios, heaters and other equipment delivered with the motor vehicle or trailer. Trade-in allowance cannot be deducted when a used car is traded in as part payment. Provided, however, that gasoline furnished with the power vehicle shall not be included in the total delivered price. Where gasoline is billed separately or itemized separately on the bill to the purchaser, it may be excluded from the memorandum of sale required to be furnished to the county treasurer in the case of the sale of a new motor vehicle.

203 Applies to use tax only. **Total delivered price taxable.** Where a motor vehicle or trailer is sold by an Iowa dealer, the total delivered price shall be established by a memorandum of sale executed by the Iowa dealer. Where a motor vehicle is purchased from a dealer or other person outside this state, the purchase price must be established in every case by the applicant's return of information or affidavit form number UT-515.

The exclusion provided for in rule No. 202 shall apply to this rule.

204 Applies to use tax only. **Claim for refund of use tax.** No claim for refunds will be considered by this commission unless such claim is accompanied by verification, on a form provided by this commission, from the county treasurer in whose office the motor vehicle was registered.

205 Applies to use tax only. **Automobile dealers defined.** Dealers shall include only persons who are holders of a retail sales tax permit and are also licensed automobile dealers. Where a dealer files an affidavit of exemption from use tax, the sales tax permit number of the dealer must be shown on each affidavit except in the case of a finance company holding a retail sales tax permit to sell repossessed cars to individuals, in which case the finance company is not required to be a holder of a dealer's license. (Modified by use tax rule No. 235.)

206 Applies to use tax only. **Automobile dealers' exemption.** Exemptions provided for dealers apply only in cases where registration is applied for in the name of the dealer holding a retail sales tax permit. Such an exemption is not allowable where members of the firm, salesmen or other persons connected with the firm register vehicles in their own individual names. (Modified by use tax rule No. 235.)

207 Applies to use tax only. **Finance companies.** Where a finance company repossesses a motor vehicle or trailer registered in a state other than Iowa, it may register such vehicle without payment of use tax by signing affidavit form number UT-626 referring to that portion of the affidavit which claims exemption by reason of the fact that the vehicle is being registered solely for the purpose of resale. Retail sales tax shall be collected by the finance company when the vehicle is sold. (Modified by use tax rule No. 235.)

208 Applies to use tax only. **Sales tax permit required.** Finance companies selling repossessed vehicles to consumers are required to hold a retail sales tax permit, their permit number showing on the affidavit.

209 Selling repossessed vehicles at wholesale. Where finance companies dispose of repossessed vehicles at wholesale, that is, where such vehicles are sold to dealers, exemption must be claimed by making the return of information in the form of an affidavit stating the facts. No form of affidavit is provided for finance companies disposing of their repossessed cars by wholesale.

210 Federal, state and vehicles owned by tax certifying or tax levying bodies of Iowa or governmental subdivisions thereof. Federal or state vehicles owned by any tax certifying or tax levying body of Iowa or governmental subdivision thereof are exempt from sales or use tax EXCEPT those used in connection with or by a municipally-owned public utility engaged in selling GAS, ELECTRICITY OR HEAT to the general public. [Filed August 19, 1954]

211 Applies to use tax only. **Vehicles inherited.** Where a motor vehicle or trailer registered in a state other than Iowa is received by an Iowa resident as an inheritance from a decedent, the Iowa use tax is not imposed upon such a car. Where a motor vehicle or trailer is inherited, the county treasurer must require a special affidavit to be made before the vehicle is registered; no form is provided for such a case.

212 Applies to use tax only. **Exchange of vehicles.** When a resident of Iowa exchanges an automobile for a vehicle registered in another state, use tax is due when the Iowa resident makes application for registration of the car so received. The measure of the tax is two percent of the Iowa resident's declared valuation of the car being registered. This valuation must be established by affidavit form number UT-515.

213 Applies to use tax only. **Four affidavit forms furnished.** Four returns of information in the form of affidavits are provided by this commission. They are forms UT-503, UT-503-A, UT-514 and UT-515. When any of the above-named forms of affidavit are used, the following rules must be observed:

The venue must be established, that is, the name of the county in which the affidavit is sworn to must be inserted in the heading of the affidavit.

Paragraph "A" must be used if the owner is just one individual and does not use a trade name. If paragraph "A" is used, do not use paragraph "B".

Paragraph "B" must be used if the owner is a corporation, a partnership, an individual doing business under a trade name, or if one individual makes affidavit on behalf of another individual.

The number of the paragraph on which the

applicant relies for exemption must be written in the space of the same, in paragraph "A," if "A" is used, or in paragraph "B," if "B" is used.

The make, year and type, motor number and Iowa registration number must be written in the space provided for such information.

"A" must not be used if "B" is required.

The person swearing to an affidavit shall subscribe his own signature, not the name of the firm.

Example: If Peter Johnson signs an affidavit on behalf of the Johnson Motor Company, a corporation of Cherokee, Iowa, he should use paragraph "B," the heading of which should be made as follows: I, Peter Johnson, salesman for the Johnson Motor Company, a corporation. In the place designated for signature in the affidavit should be only the name "Peter Johnson."

Note: There has been filed in the Code editor's office a copy of an order of the state tax commission rescinding the above rule 213, which order was filed in the office of the secretary of state June 27, 1952. No certificate appears with the rescinding order that it had been filed for approval as to form and legality with the attorney general nor any certificate that it was so approved or remained in his office for twenty days and no action taken thereon. [Acts 54 G.A., ch 51.]

214 Applies to use tax only. **Gifts.** Cars given to Iowa residents are taxable. Use tax must be paid at the time the application is made for the first registration in this state. It is immaterial whether the application is made by the donor or the recipient of the gift. If application for registration is made by the recipient of the gift and no evidence can be obtained as to the price the donor paid for the motor vehicle or trailer, use tax must be computed and paid upon the normal delivered price of a like car in the county where the application for registration is made.

215 Administration of oaths. Persons authorized by chapter 78 and section 421.21, Code, may administer oaths in respect to affidavits authorized and required by this commission to verify exemptions from use tax on motor vehicles and trailers.

Section 421.21.

See rule No. 7.

216 Applies to use tax only. **Returns of information.** Four forms of affidavits are furnished by this commission on which to make return of information verifying exemption from use tax on motor vehicles and trailers. The affidavits are forms UT-503, UT-626 and UT-515, which are explained in rules No. 217 to 231, inclusive, except rules 228, 229 and 230.

217 Affidavit form UT-503. Rescinded on June 30, 1952.

218 Applies to use tax only. **Affidavit form UT-503, Par. (3).**

"That I am a resident of the State of, and not a resident of the State of Iowa, and

that said motor vehicle or trailer belongs to me individually and was brought by me into the State of Iowa for my individual use and enjoyment while within the State of Iowa."

The above exemption should be claimed only in case a resident of a state other than Iowa is in this state for a short time and is using his motor vehicle or trailer, or both, for *personal reasons*. This exemption is not intended to and does not exempt persons who bring vehicles into the state of Iowa for use either directly or indirectly in the transaction of business in this state.

Example 1: Where a contractor brings vehicles into this state to be used on construction work, such vehicles are subject to use tax unless exempted by some other provision of the law.

Example 2: Where a salesman or representative of some firm brings either his own or his firm's vehicle into this state for use in connection with his work as such salesman or representative, he is not entitled to exemption under paragraph (3). Therefore, use tax shall be collected.

219 Applies to use tax only. **Affidavit form UT-503, paragraph (4). Homemade trailers.** All new trailers purchased on or after April 16, 1937, for use in Iowa are subject to use tax, use tax being payable to the office which issues the registration plates, at the time the original certificate of registration is secured.

If a consumer, who is not engaged in the business of selling new trailers or is not engaged in the business of manufacturing new trailers, purchases articles of tangible personal property and assembles same into a homemade trailer, no use tax is to be collected by the office that issues the original certificate of registration for such trailer. On the other hand, the owner of such trailer under these circumstances would owe sales tax to his Iowa supplier when purchasing the parts and would likewise owe use tax if such parts are purchased outside of Iowa, the use tax to be reported and remitted directly to the state tax commission, unless the vendor from whom purchase is made is registered with and does bill and collect the Iowa use tax for the state. The purchaser in such instances does not purchase a new trailer, as such, and therefore owes no use tax on the completed unit to the county treasurer.

This exemption would not be in order, where a person engaged in the business of selling new trailers or of manufacturing new trailers applies for original certificate of registration in Iowa for the purpose of the use or consumption of the trailer by himself. In such cases use tax would be due at the rate of two percent of the purchase price, where the trailer was purchased as such, or two percent of the cost of manufacture where the trailer was manufactured.

Example 1: Where a manufacturer of vehicles brings a vehicle into the state of Iowa for use of the manufacturer or any of its

agencies, and the particular car was not constructed for the individual use of the manufacturer, it is taxable.

220 Applies to use tax only. **Affidavit form UT-503, paragraph 5.**

"That said motor vehicle or trailer was purchased in the state of, and that a tax with respect to its sale or use was paid by me/it to that state at the rate of %, purchase price \$, tax \$"

The above exemption is allowed for the reason that it is not the intention of the use tax law that a tax shall be levied more than once on the property in the hands of the same individual. In order to prove the above exemption, the applicant for registration must show that the applicant is the identical person who paid retail sales tax or use tax on the same vehicle in a state other than Iowa.

The exemption provided for in paragraph 5 shall be allowed only when the amount of tax paid in another state is equal to or greater than the amount of use tax which would have been collected by this state if the vehicle had been purchased in Iowa. In Iowa, use tax is collected on the full purchase price which includes the federal manufacturer's tax, freight and all accessories delivered with the car at the time of its sale. If the amount of tax paid in another state does not equal the amount of tax that would have been collected on such a purchase, had the purchase been made in Iowa, then the difference between the tax which was paid in another state and the tax which would have been paid if the vehicle had been purchased in Iowa, must be collected before it is registered in this state.

221 Applies to use tax only. **Affidavit form UT-503, paragraph 5a.**

"That said motor vehicle or trailer was formerly licensed by me/it in the State of Iowa and a Sales Tax or Use Tax paid to the State of Iowa by me/it."

The above exemption is allowable only in case the applicant had previously registered the same car in Iowa and had paid either retail sales or use tax, then moved the vehicle out of the state, registering it in another state and later returning to the state of Iowa. In such a case the applicant must establish that he is the identical person who had previously registered the vehicle in this state and that the Iowa retail sales tax or use tax had been paid to the state of Iowa at the time of the original registration.

222 Applies to use tax only. **Affidavit form UT-503, paragraph 6.**

"That said motor vehicle or trailer was purchased by me in the state of, when I was a resident of said state and for use therein, and I have now changed my residence to the state of Iowa."

The exemption provided in paragraph 6 may be allowed only in the case where the resident of another state actually moves from that state into the state of Iowa and brings

with him a motor vehicle or trailer. A corporation organized under the laws of another state cannot claim exemption by reason of moving into this state. A corporation does not change its residence.

Example 1: Where a salesman or representative of a corporation moves from another state into this state bringing with him the vehicle licensed in the name of the corporation, there is no change of residence on the part of the owner of the vehicle and no exemption shall be allowed. The above would be effective if the owner were a corporation, a partnership, or a person, if the car sought to be registered were intended to be used for business purposes in the state of Iowa.

223 Applies to use tax only. Affidavit form UT-503, paragraph 7.

"That I am a resident of the state of, and not a resident of the state of Iowa; that said motor vehicle was purchased for use in the state of, and is being registered in Iowa for the sole purpose of facilitating movement to that state."

The above paragraph is to be used for the purpose of securing exemption in case a resident of another state purchases a car in the state of Iowa and registers such a car for the sole purpose of driving the car out of the state.

Example 1: If a resident of another state should be driving through Iowa and wreck his car and should trade the wrecked car for a new one with which to travel on through the state, the car purchased for the purpose of continuing the journey would be exempted from the Iowa use tax and paragraph 7 should be used in support of the applicant's claim of exemption.

224 Affidavit form UT-503-A. Rescinded on June 30, 1952.

225 Affidavit form UT-503-A, (1), (2). Rescinded on June 30, 1952.

226 Applies to use tax only. Exemptions from use tax upon registration of motor vehicles and trailers by reason of use in interstate transportation or interstate commerce. A motor vehicle or trailer to be exempt from the Iowa use tax, under the provisions of subsection 2 of Code section 423.4, upon the grounds that it is used in interstate transportation or interstate commerce must clearly come within one or more of the following provisions. It must be shown:

1. That the motor vehicle or trailer is to be used exclusively in interstate transportation or interstate commerce; that is, the motor vehicle or trailer sought to be exempted is not intended to be used at any time for intrastate business;

2. That the motor vehicle or trailer sought to be exempted from use tax is intended to be used on a regular route between fixed termini, at least one terminus to be located outside the state of Iowa;

3. That the motor vehicle or trailer sought to be exempted from use tax must be intended to be used as a common carrier under all rules and regulations governing common carriers;

4. That motor vehicles or trailers, which are not common carriers, operate between a point in Iowa and points outside the state of Iowa in the transportation of goods, wares, or merchandise of the owner and make no deliveries in Iowa except such deliveries as are made to the warehouse of the owner.

A motor vehicle which is used for personal transportation of representatives of a person, firm or corporation, having its principal place of business in the state of Iowa or having a branch office or place of business in the state of Iowa, is not considered as being used in interstate commerce, notwithstanding the fact that such a vehicle may from time to time be used to transport persons across the state lines.

Any motor vehicle or trailer which is intended to be used at any time for the transaction of purely intrastate business or the making of purely intrastate deliveries is not considered to be used exclusively in interstate transportation or interstate commerce and the use tax imposed by law should be collected when such a motor vehicle or trailer is registered in Iowa for the first time.

Form UT-503-A is hereby designated as the official form on which to make affidavit in support of claim for exemption from payment of use tax for the reason that a motor vehicle or trailer is used *exclusively* in interstate commerce or interstate transportation.

No claimant shall be exempt until such claimant shall have established his right under this rule beyond all doubt and shall have made affidavit on form UT-503-A in which such a claimant sets forth the manner in which such a motor vehicle is used in the business of the applicant and shows by the statement made on said form UT-503-A that the motor vehicle is to be used in such manner as to be clearly exempt under the provisions hereinbefore set forth. [See note following 227.]

227 Leased motor vehicles and trailers. Rescinded on June 30, 1952.

228 (Modified by use tax Rule No. 235.)

229 (Modified by use tax Rule No. 235.)

230 (Modified by use tax Rule No. 235.)

231 Applies to use tax only. Affidavit form UT-515. Form UT-515 is to be used for the purpose of establishing and verifying the total delivered purchase price of a motor vehicle or trailer purchased outside the state of Iowa. The purchase price of a vehicle bought in Iowa must be established by a dealer's memorandum of sale. The price of a vehicle purchased outside the state of Iowa must be established by a return of information made on affidavit Form UT-515. Before a motor vehicle purchased outside this state is regis-

tered by a county treasurer, the county treasurer must be satisfied that the information stated on Form UT-515 is true and correct.

FORM UT-515 RETURN OF INFORMATION PURCHASER'S AFFIDAVIT SUBSTANTIATING TOTAL DELIVERED PRICE OF MOTOR VEHICLE PURCHASED OUTSIDE THE STATE OF IOWA

STATE OF IOWA }
COUNTY OF.....} ss.

A.* I, Name of Owner, Street Address, City, State, being first duly sworn upon oath depose

and state, that I am the owner of the motor vehicle hereinafter described; that I wish to secure Iowa registration plates for said vehicle and, for the purpose of determining the amount of Use Tax to be paid to the State of Iowa, I hereinafter set out the following information:

B.* I, Name of Individual Making Affidavit, Title, for Name of Partnership, Corporation or Trade Name

being first duly sworn, upon oath depose and state that the foregoing applicant, whose principal place of business is located at City, State, is the owner of the motor vehicle hereinafter described;

*USE PARAGRAPH "A" IF INDIVIDUAL; "B" IF CORPORATION, PARTNERSHIP, OR TRADE NAME.

that it wishes to secure Iowa registration plates for said vehicle and, for the purpose of determining the amount of Use Tax to be paid to the State of Iowa, I hereinafter set out the following information:

- 1. That said motor vehicle was purchased by applicant from Name of Seller, City, State;
2. That said vehicle was purchased by applicant on the day of 19....;
3. That the total delivered purchase price to applicant was \$.....; that the purchase price mentioned is the total delivered price, without deducting any amount allowed for property traded in.

Said motor vehicle is described as follows: NEW IOWA REGISTRATION NO. MAKE YEAR AND TYPE MOTOR NO.

(Signature) Subscribed and sworn to before me this day of 19....

Notary Treasurer

This oath may be administered by any agent or employee of the State Tax Commission, State Motor Vehicle Department, or County Treasurer's office. Personal signature of party administering oath should be affixed. Accepted by County Treasurer.....County.

Note: This affidavit must be filed in duplicate with the county treasurer. County treasurer shall forward one copy to the state tax commission with his monthly report and retain the other copy for his files.

232 Applies to use tax only. Incorrect affidavits. Affidavits of exemption which are not correct in both substance and form cannot be accepted by this commission in lieu of use tax. In case of doubt, the county treasurer shall collect use tax. It is always the privilege of the taxpayer to file a claim for refund if he believes use tax has been erroneously collected.

233 Dealers selling new trailers, including house, farm and other trailers. Section 423.8 Code of Iowa provides that motor vehicle and trailer dealers are exempted from sales tax with respect to their receipts from retail sales of new motor vehicles or new trailers, as these terms are defined in the motor vehicle law of Iowa, which are required to be registered under such motor vehicle law.

The Iowa motor vehicle law was amended, effective July 4, 1961, by chapter 108, Acts 59GA to provide that all "House Trailers" and "Mobile Homes" be registered under section 321.123, whether or not for highway use. This means that Iowa dealers receipts from sales at retail of new house trailers and new mobile homes made on and after July 4, 1961, are exempted from sales tax. Such dealers should report such receipts on their quarterly sales tax returns to the state tax commission and take appropriate deductions under 2 (F) of the return.

The county treasurer or state motor vehicle registration division shall, before issuing a registration for a new house trailer or new mobile home sold on or after July 4, 1961, collect the use tax due and give a proper receipt therefor and report and remit same in its monthly report to the commission.

With respect to each "Mobile Home" and each "House Trailer" for which application for registration is made, which has not been previously registered in Iowa under the motor vehicle law, as well as such units which may have been registered in another state, but have been purchased by non-Iowa consumers, the office issuing the registration shall collect any use tax due, or secure an affidavit form UT-503 and state thereon the reason why use tax is not due, if this be the case, even though the applicant may have acquired the unit before July 4, 1961.

A consumer before July 4, 1961, buying a house trailer or mobile home either new or used, from an Iowa dealer, where the use tax was not paid nor the sales tax paid the dealer would be in a situation where tax would appear due, and section 321.30 (6) of the motor vehicle law provides registration shall be refused if the required sales tax was not paid to the dealer, as well as section 423.7 of the use tax law providing use tax due shall be paid before registration. If there is a proper basis for exemption, the complete facts should be given on affidavit form UT-503, the reverse side to be used if space is needed.

The office issuing the registration, need not review for sales or use tax purposes, an application for registration of a mobile home or

house trailer purchased by the applicant longer than five years before the date of the application for registration. [Amended August 10, 1962]

Sections 321.123, 423.1 (7) and 423.7

233.1 Homemade trailers for personal use. (See Rule 219).

234 Powers and duties of motor vehicle registration division, Department of Public Safety of Iowa. When a motor vehicle or trailer (new or used) is registered or titled with the latter division, that division shall have all of the powers and duties in respect to the collection of and reporting to the state tax commission of use tax, granted to and respective county treasurers of Iowa by chapter 423, Code of Iowa, and by state tax commission rules and regulations adopted pursuant thereto in collecting use tax on motor vehicle and trailers registered or titled in their several counties. [Amended August 5, 1958]

235 Use tax to be collected by the county treasurers and the state motor vehicle registration division. (Applies to "new motor vehicles" and "new trailers".)

A. In each case where an original Iowa registration is issued for a "New Motor Vehicle" or a "New Trailer", as these terms are defined in the use tax law, the county treasurer or the state motor vehicle division, whoever issues the registration, shall collect from the applicant a use tax of two percent of the applicant's purchase price, except only as otherwise provided herein.

B. An original registration may be issued for a NEW MOTOR VEHICLE or a NEW TRAILER WITHOUT the collection of use tax only in the following situations:

1. When the applicant is applying for a registration for a "New House Trailer" or a "New Farm Trailer" and can prove he has paid the Iowa sales tax to the dealer selling the trailer (as provided in Rule No. 233) or that he purchased the unit from a consumer who paid the sales tax to the dealer selling the unit. An affidavit (in duplicate) stating the facts should be made and filed by the applicant with the office who issues the registration, a copy to be retained by the office and the original to be sent to the use tax department with the monthly use tax report.

2. Where a CONSUMER is applying for registration of a "homemade trailer" never before registered, where he built the trailer himself from parts which he purchased at retail and upon which he paid a tax to the seller. These facts should be established by the applicant executing and filing in duplicate with the office issuing the registration, an affidavit, a copy to be retained by that office and the original to be sent to the use tax department with the monthly report. The term "homemade trailer" does not include those trailers which are manufactured by a person in such a business, for the purpose of rental or sales. (See Form UT-503 Affidavit No. 4.)

3. When a nonresident of Iowa applies for a "nonresident—in transit" registration (\$5.00) for a new motor vehicle which he has purchased in Iowa and for which he intends to secure permanent registration in a state other than Iowa. Such an applicant should establish such facts by executing an affidavit in duplicate and filing same with the office issuing the registration, a copy to be retained by that office and the original to be sent to the use tax department with the monthly use tax report. (See Form UT-503 Affidavit No. 7.)

4. When a nonresident of Iowa is applying for a truck, truck tractor, or semitrailer (but not passenger buses) registration for the sole purpose of complying with the motor truck reciprocity law and complies by properly executing affidavit Form UTMVR-611 (in triplicate) and presents same to the office issuing the registration, one copy to be sent with the monthly report to the use tax department, and one to the state motor vehicle registration division.

5. Where the applicant is a tax certifying or tax levying body of Iowa or governmental subdivision thereof and is to use the unit for public purposes, except municipally-owned electric, gas or heat departments selling to the public would owe use tax on units used in these departments.

6. Where the applicant for an Iowa registration for a new unit has paid and can prove sales tax or use tax or occupational tax payment by him to a state other than Iowa, credit shall be allowed for such tax so paid and proven, against the Iowa tax. If equal to the Iowa tax, no further tax should be collected, and if less than the Iowa tax, the difference shall be collected by Iowa. Iowa tax is measured at the rate of two percent of the applicant's purchase price, before any amount is deducted for property traded in, in event of a trade-in deal.

C. Chapter 110, Acts of the 54th General Assembly, [§322.2(6)], defines "used motor vehicles" to mean "any motor vehicle of a type subject to registration under the laws of this state, which has been previously registered or for which a certificate of title has been issued in this or any other state."

D. For the purpose of this rule a new motor vehicle or a new trailer is one subject to registration under the laws of this state, which has not been previously registered or titled in this or any other state.

E. Licensed auto dealers are not required under the new motor vehicle "Title" law to register used foreign motor vehicles, but are required to secure a title for such units within forty-eight hours after they arrive in this state. Dealers, when applying for a title on such foreign used vehicles, should execute a resale affidavit Form UT-626 in duplicate and file with the office issuing the title, a copy to be retained by that office and the original to be sent to the use tax department with the monthly use tax report.

F. Upon adoption of this rule Affidavit Form UT-514 shall be abolished and its use no longer permitted in lieu of use tax.

G. Any and all opinions and rules of the state tax commission, including rules numbered 205, 206, 207, 228, 229 and 230 of the commission's 1953 Sales and Use Tax Regulations, which are to be found in 1952 I. D. R. which are inconsistent herewith, are hereby amended and modified as of the effective date of this rule, to conform herewith.

The provisions of this rule, numbered 235, shall be effective the first day of April, 1954, and any modifications of previous rules hereby made shall not apply prior to April 1, 1954. [Filed March 15, 1954]

CHAPTER 5

SALES AND USE TAX ON SERVICES

Preamble. The Code, section 423.2, as amended, imposes, on and after October 1, 1967, a complementary tax on the use in this state of the enumerated services rendered, furnished, or performed in Iowa, or on the use in Iowa of the product or result of such services obtained outside this state. The following regulations specifically deal with the interpretation of each service taxed as enumerated in the Code, section 422.43, as amended. All of the following regulations are applicable to the tax imposed by both sections 422.43 and 423.2, of the Code, as amended, unless otherwise stated. The rules and regulations governing the administration of the Retail Sales Tax, chapter 422 of the Code, as amended, and the Use Tax, chapter 423 of the Code, as amended, applicable to tangible personal property also apply to the administration of such sales and use tax on the gross receipts from the rendering, furnishing, or performing of services, imposed by sections 422.43 and 423.2 of the Code, as amended.

5.1(422) Definition. The phrase "persons engaged in the business of" as used herein shall mean persons who offer the named service to the public or to others for a consideration whether such persons offer the service continuously, part time, seasonally, or for short periods.

5.2(422) Alteration and garment repair. Persons engaged in the business of altering or repairing any type of garment or clothing are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. Included are the services rendered, furnished, or performed by tailors, dressmakers, furriers, and others engaged in similar occupations. When the vendor of garments or clothing agrees to alter same without charge when an individual purchases such garments or clothing, no tax on services in addition to the sales tax paid on the purchase price of the article shall be charged. However, if the vendor makes an additional charge for alteration, that additional charge shall be subject to the tax on the gross receipts from the services.

5.3(422) Armored car. Persons engaged in the business of providing armored car service to others are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. "Armored car" shall mean a wheeled vehicle affording defensive protection by use of a metal covering, or other elements of ordnance.

5.4(422) Automobile repair. Persons engaged in the business of repairing motor vehicles are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. "Repair" shall include any type of restoration, renovation, or replacement of any motor, engine, working parts, accessories, body, or interior of the motor vehicles, but shall not include installation of new parts or accessories, which are not replacements, added to the motor vehicles. "Motor vehicle" shall mean a vehicle commonly used on a highway propelled by any power other than muscular power.

5.5(422) Battery, tire, and allied. Persons engaged in the business of installing, repairing, maintaining, restoring, or recharging batteries, and services joined and connected therewith; and persons engaged in the business of installing, repairing, maintaining tires, and services joined or connected therewith, for any type of vehicle or conveyance are rendering, furnishing, or performing a service the gross receipts from which are subject to tax.

5.6(422) Investment counseling. Persons engaged in the business of counseling others, for a consideration, as to investing in and disposition of both real and personal property, tangible as well as intangible, are engaged in and are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. Persons engaged in the business of counseling others relative to investment in or disposition of property or rights, whether real, personal, tangible, or intangible, where a charge is made for such counseling, are rendering, furnishing, or performing services, the gross receipts from which are subject to tax. Where such services are rendered incidental to trust services, as in the case of trustees, guardians, executors, administrators, and conservators, the gross receipts from such incidental services are not subject to tax.

5.7(422) Bank service charges. The gross receipts from bank services rendered, furnished, or performed by banks and charged to the customer are receipts which are subject to the tax.

"Bank service charges" are all charges assessed to and collected from the depositor in cash or by debit in connection with and arising out of a periodic analysis of his checking account, whether based on activity, balance maintained, fixed maintenance cost allocation, or any combination thereof, and all service charges made in connection with checking accounts. For example, but not limited to:

Flat charge by account or activity.

Per check or average balance.

Thrifty accounts. PAYC (pay as you check) accounts.

Deposits. (Per item or out-of-town checks.)

"Bank" is an institution empowered to do all banking business, such as power and right to issue negotiable notes, discount notes and receive deposits, and "banking business" consists in receiving deposits payable on demand and buying and selling bills of exchange.

5.8(422) Barber and beauty. Persons engaged in the business of haircutting, hair styling, hair coloring, wig care, manicuring, pedicuring, applying facial and skin preparations, and all like activities which tend to enhance the appearance of the individual are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. Each "barber, beauty, or other beautification shop or establishment" shall receive only one sales tax permit and remit the tax as one enterprise no matter what business arrangement exists between the owner of the shop and those who work therein.

5.9(422) Boat repair. Persons engaged in the business of repairing watercraft are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. "Repair" shall include any type of restoration, renovation, or replacement of any motor, engine, working part, accessory, hull, or interior of the watercraft, but shall not include installation of new parts or accessories, which are not replacements, added to such watercraft.

5.10(422) Car wash and wax. Persons engaged in the business of washing or waxing cars are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. The gross receipts from such service shall be taxable whether it is performed by hand, machine, or coin-operated devices. "Cars" are defined as any motor vehicle as defined in chapter 321 of the Code.

5.11(422) Carpentry. Persons engaged in the business of building, making, or repairing, as a carpenter, as the trade is known in the usual course of business, of any structures are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. Such structures may be either real or personal property.

5.12(422) Roof, shingle, and glass repair. Persons engaged in the business of repairing, restoring, or renovating roofs, or shingles, or restoring or replacing glass, whether such glass is personal property or affixed to real property, are rendering, furnishing, or performing a service the gross receipts from which are subject to tax.

5.13(422) Dance schools and dance studios. The gross receipts from services rendered, furnished, or performed by dance schools or dance studios are subject to tax. A "dance school" is any institution established primarily for the purpose of teaching any one or more types of

dancing. A "dance studio" is any room or group of rooms in which any one or more types of dancing are taught. If other activities such as acrobatics, exercise, baton twirling, tumbling, or modeling are taught in dance schools or studios, the gross receipts from the teaching of such activities are subject to tax.

5.14(422) Dry cleaning, pressing, dyeing, and laundering. Persons engaged in the business of rendering, furnishing, or performing dry cleaning, pressing, dyeing, and laundering services, including those who engage in such business by means of coin-operated washers, ironers or mangles, dryers, and dry cleaning machines are rendering, furnishing, or performing a service the gross receipts from which are subject to tax.

5.15(422) Electrical repair and installation. Persons engaged in the business of repairing or installing electrical wiring, fixtures, switches in or on real property, or repairing or installing any article of personal property powered by electric current are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. "Repair" shall include mending or renovation of existing parts, replacing of defective parts, or cleaning of the article. "Installation" shall include affixing electrical wiring, fixtures, or switches to real property, affixing any article of personal property powered by electric current to any other article of personal property, or making any article of personal property, powered by electric current, operative with respect to its intended functional purpose.

5.16(422) Engraving, photography and retouching. Persons engaged in the business of engraving on wood, metal, stone, or any other material, taking photographs, or renovating or retouching an existing likeness or design are rendering, furnishing, or performing a service the gross receipts from which are subject to tax.

5.17(422) Equipment rental. Persons engaged in the business of furnishing equipment to other persons for their use are rendering, furnishing, or performing a service subject to tax measured by the gross receipts of fees charged for the use of such equipment. For this purpose "equipment" is defined as any functional personal property, the function of which contributes to the purposes of the person who shall have obtained it for use, whether such use involves equipment which functions in a state of rest or in a state of motion. This rule is not to be so construed as to be at variance with subsection 2 of section 422.45 of the Code.

5.17(1) Contract entered into prior to June 15, 1967. Where equipment rented pursuant to a contract entered into prior to June 15, 1967, results in gross receipts from charges for such rental, such gross receipts attributable to the portion of the rental period occurring prior to June 15, 1969, pursuant to such con-

tract, shall not be a basis for the tax; gross receipts, under such contract, attributable to the portion of the rental period occurring on and after June 15, 1969, shall be a basis for the tax.

5.17(2) Contract entered into after June 15, 1967. Where equipment rented pursuant to a contract entered into after June 15, 1967, and prior to October 1, 1967, results in gross receipts from charges for such rental, such gross receipts attributable to the portion of the rental period occurring before October 1, 1967, pursuant to such contract, shall not be a basis for the tax; but such gross receipts as are attributable to the portion of the rental period occurring on and after October 1, 1967, shall be a basis for the tax. Correspondingly, gross receipts of rental charges for such equipment pursuant to rental periods beginning on and after October 1, 1967, shall be a basis for the tax.

5.18(422) Excavating and grading. Persons engaged in the business of excavating and grading for the purpose of constructing roads, highways, thoroughfares for travel or transportation from place to place, driveways, paths, routes, roadbeds and borrow pits, or any other type of way; the excavating and digging of basements and any other type of recessional dugout, or the forming of any type of cavity, by concaving or convexing in the ground by digging or scooping; also the digging of pipe lines of all types, sewers, cesspools or septic pools, swimming and water areas, for recreational or any other purpose, drainage ditches and creeks and the general forming of earth by contouring, terracing, damming, sloping, or ridging to retard erosion or speed drainage, and building a line connecting the various points on a line surface that have the same elevation, and any other type of earth moving, forming, or moulding are rendering, furnishing, or performing a service the gross receipts from which are subject to tax.

5.19(422) Farm implement repair. Persons engaged in the business of repairing, restoring, or renovating implements, tools, machines, vehicles, or equipment, but not including installation of new parts or accessories which are not replacements, used in the operation of farms, ranches, or acreages on which growing crops of all kinds, livestock, poultry, or fur-bearing animals are raised or used for any purpose are rendering, furnishing, or performing a service the gross receipts from which are subject to tax.

5.20(422) Flying service. Persons engaged in the business of teaching a course of instruction in the art of operation and flying of an airplane, and instructions in repairing, renovating, or reconditioning an airplane are rendering, furnishing, or performing a service the gross receipts from which are subject to tax.

5.21(422) Furniture, rug, upholstery, repair and cleaning. Persons engaged in the business

of repairing, restoring, renovating, or cleaning furniture, rugs, or upholstery are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. "Furniture" shall include all indoor and outdoor furnishings wherever used. "Rugs" shall include all types of rugs and carpeting. "Upholstery" shall include all materials used to stuff or cover any piece of furniture.

5.22(422) Fur storage and repair. Persons engaged in the business of storing for preservation and future use, refurbishing, repairing, and renovating, including addition of new skins, furs are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. The term "furs" shall include both natural and manufactured simulated products resembling furs.

5.23(422) Golf and country clubs and all commercial recreation. Fees, dues, or charges paid to golf and country clubs are subject to tax. "Country clubs" shall include all clubs or clubhouses providing social activities, including golf and other recreation for members. Persons providing facilities for recreation for a charge are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. "Recreation" shall include all activities pursued for pleasure, including sports, games, and activities which promote physical fitness, but shall not include admissions otherwise taxed under section 422.43 of the Code.

5.24(422) House and building moving. Persons engaged in the business of moving houses, or buildings from one location to another, whether for repair or otherwise, are rendering, furnishing, or performing a service the gross receipts from which are subject to tax.

5.25(422) Household appliance, television, and radio repair. Persons engaged in the business of repairing household appliances, television sets, or radio sets, but not including installation of new parts or accessories which are not replacements [see 5.15 (422)], are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. "Repair" shall include mending or renovation of existing parts of such appliances, television sets, radio sets, and all other household appliances as well as replacing defective parts of such articles. "Household appliances" shall include all mechanical devices normally used in the home, whether or not used therein.

5.26(422) Jewelry and watch repair. Persons engaged in the business of repairing jewelry or watches are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. "Jewelry or watch repair" shall include any type of mending, restoration, or renovation of parts, or replacement of defective parts.

5.27(422) Machine operator. Persons engaged in the business of operating machines of all kinds, where a fee is charged, are render-

ing, furnishing, or performing a service the gross receipts from which are subject to tax. "Machine operator" is a person who exercises the privilege of managing, controlling, and conducting a mechanical device or a combination of mechanical powers and devices used to perform some function and thereby produce a certain effect or result. For the purpose of this rule, the meaning ascribed to "machine" in 5.28(422) shall apply.

5.28(422) Machine repair of all kinds. Persons engaged in the business of repairing machines of all kinds are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. "Machine" shall include all devices having moving parts and operated by hand, powered by a motor, engine, or other form of energy. It is a mechanical device or combination of mechanical powers and devices used to perform some function and produce a certain effect or result.

5.29(422) Meat, fish, and fowl processing. Persons engaged in the business of processing meat, fish, or fowl for another for the use or consumption of such other person are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. A meat, fish, or fowl packer or processor who processes such products for sale at retail to the ultimate consumer [, said processing including, but not limited to, freezing or cold storage thereof by the packer or processor, or by a person performing such service for the packer or processor] would not be rendering, furnishing, or performing a service the gross receipts from which would be subject to tax. However, if a person purchases meat, fish, or fowl and then hires another to process that product for use or consumption by such person, the gross receipts from the rendering, furnishing, or performing such services are subject to tax.

5.30(422) Motor repair. Persons engaged in the business of repairing motors powered by any means whatsoever are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. "Repair" shall include mending or renovation of parts, replacement of defective parts or subassemblies of the motor, but shall not include installation of new parts or accessories which are not replacements.

5.31(422) Motorcycle, scooter, and bicycle repair. Persons engaged in the business of repairing motorcycles, scooters, and bicycles are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. "Repair" shall include mending or renovation of parts, replacement of defective parts or subassemblies, but shall not include installation of new parts or accessories which are not replacements.

5.32(422) Advertising. [*Tax on advertising repealed by 63 GA, ch 428.*] Persons engaged in the business of publishing, broadcasting, or

otherwise producing advertising in the media of newspapers, directories, shopper's guides and shopper's newspapers, magazines, radio, movie, or television are rendering, furnishing, or performing a "service" within the purview of the Act.

5.32(1) Definitions. "Advertiser" as used herein, shall mean the person for whose commercial benefit any product, idea, or service is being offered. "Advertising medium" as used herein, shall mean the person or persons, who publishes, broadcasts, televises, produces, or otherwise distributes, propels, or disseminates the advertising message.

5.32(2) Application of tax. Beginning October 1, 1967, receipts from all acts or services rendered, furnished, or performed as advertising in the state of Iowa, are subject to a service tax of three percent of the value of said advertising as provided in chapter 348, Acts of the 62nd General Assembly, subject to all the provisions of Division IV of chapter 422 and chapter 423 of the Code, both as amended. The advertising medium having rendered, furnished, or performed such services shall collect from the advertiser or his agent and remit the tax to the department of revenue.

Items of tangible personal property (such as mats, engravings, recordings, films, etc.) used in Iowa as instrumentalities to effect advertising service are taxable under Iowa "Sales Tax" if purchased in this state by persons rendering the taxable advertising service. When such items are purchased without Iowa for such use here, the use tax applies if the items come to rest in Iowa before any claimed use in interstate commerce. In the same manner, the "service tax" applies where the result or product of such services, rendered without Iowa, is used in this state.

5.32(3) Outdoor and point-of-purchase advertising. See 5.33(422).

5.32(4) Promotion and direct mail advertising. See 5.42(422).

5.32(5) Classes of advertising. There are five classes of advertising service definable by their separate characteristics. The separate classes are herein accorded congruent treatment insofar as their separate characteristics will permit in the discretion of the department of revenue. The classes of advertising and corresponding application to "advertiser" and "advertising medium" are enumerated as follows:

a. Printed messages distributed through a circulation plan by which deliveries are made to recipients of the message.

b. Oral and oral-visual broadcasts transmitted mechanically capable of being received by mechanical means and rendered audible or audible and visual by such machinery as is adapted for this purpose.

c. Oral and oral-visual productions rendered directly perceivable by the natural functions of the human organism.

d. Outdoor and point-of-purchase performance advertising. See 5.33(422).

e. Promotion and direct mail advertising. See 5.42(422).

5.33(422) Outdoor and point-of-purchase performance advertising. Persons engaged in the business of providing advertising for others by means of outdoor and point-of-purchase performance advertising are rendering, furnishing, or performing a service the gross receipts from which are subject to tax where such service be rendered, furnished, or performed in this state, or where the product of such service is used in this state by the purchaser thereof.

5.33(1) Outdoor advertising. Outdoor advertising service may be rendered, furnished, or performed by:

a. Erection of signs bearing an advertising message by either printed expressions or depicted messages.

b. Speaker systems utilizing the natural, amplified, or modified voice.

c. Dramatic presentation through use of actors or properties wherein either voice or pantomime by persons or objects is employed.

d. Any combination of the above-enumerated means.

5.33(2) Point-of-purchase performance advertising. Where advertising is purchased at a point or location for exposure, transmittal, or distribution at or from the point or location of purchase, such advertising performance shall be deemed to be an advertising service the gross receipts from which are subject to the tax, if the point of purchase be in this state or if the product of the service is used in this state by the purchaser thereof.

5.33(3) Application of use tax. Where advertising is purchased as aforementioned outside this state for exposure entirely within this state, the entire gross cost of such advertising shall be subject to the use tax. Where advertising is purchased as aforementioned outside this state for exposure both within and outside this state, then the gross cost of such advertising shall be subject to use tax in the proportion that the number of exposures within this state bears to the total number of exposures both within and outside this state. Persons claiming exemption from use tax on basis of exposures outside the state must substantiate their claim to such exemption by an accounting of the total number of exposures everywhere and the total number of exposures within this state.

5.34(422) Oilers and lubricators. Persons engaged in the business of oiling, changing oils, or lubricating and greasing vehicles and machines of all types having moving parts or powered by a motor or engine, or other form of energy, heavy equipment vehicles or implements, whether such equipment functions in a state of rest or in a state of motion, are rendering, furnishing, or performing a service the gross receipts from which are subject to tax.

5.35(422) Office and business machine repair. Persons engaged in the business of repairing office and business machines are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. "Repair" shall include mending and renovation of existing parts, replacement of defective parts or subassemblies, but shall not include installation of new parts or accessories which are not replacements.

5.36(422) Painting, papering, and interior decorating. Persons engaged in the business of painting, papering, and interior decorating are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. "Painting" shall mean covering of both interior and exterior surfaces of tangible personal or real property with a coloring matter and a mixture of a pigment, or sealant, with some suitable liquid to form a solid adherent when spread on in thin coats for decoration, protection, or preservation purposes, and all necessary preparations therefor. "Papering" shall mean applying wallpaper or wall fabric to the interior of houses or buildings and all necessary preparations thereto including surface preparation. "Interior decoration" shall mean the service of designing or decorating the interiors of houses or buildings, counseling with respect to such designing or decoration, or the procurement of furniture, fixtures, or home or building decorations. When any person provides interior decorating service without charge as an incident to the sale of real or personal property, no sales tax in addition to that paid on the purchase price or any part thereof of the personal property shall be charged.

5.37(422) Parking lots. Persons engaged in the business of providing parking space for any vehicle are rendering, furnishing, or performing a service the gross receipts from which are subject to tax, irrespective of the method of collection utilized. "Parking lots" shall include any facility used primarily for parking vehicles, whether an outdoor lot or a building. "Parking lots" shall also include any parking facility provided by the lessor of a building to his lessees if the lessor makes a separate charge for the parking space above and beyond the rental charge for other space in the building. "Parking lots" shall also include any facility used primarily for parking vehicles even if such facility is used seasonally or for even shorter duration, such as providing parking space at the time of a show, fair, carnival, or similar event.

5.38(422) Pipe fitting and plumbing. Persons engaged in the business of pipe fitting and plumbing are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. "Pipe fitting and plumbing" shall mean the trade of fitting, threading, installing, and repairing of pipes, fixtures, or apparatus used for heating, refrigerating, air conditioning, or concerned with the introduction, distribution, and disposal of a natural or artificial substance.

5.39(422) Wood preparation. Persons engaged in the business of wood preparation or treatment for others are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. "Wood preparation" shall include all processes whereby wood is sawed from logs into measured dimensions, planed, sanded, oiled, or treated in any manner before being used to repair an existing structure or create a new structure or part thereof. But where such preparation is engaged in solely for the purpose of processing lumber or wood products for ultimate sale at retail, such "preparation" may not be deemed as rendering, furnishing, or performing a service the gross receipts from which would be subject to tax.

5.40(422) Private employment agencies. Persons engaged in the business of providing listings of available employment, counseling others with respect to future employment, or aiding another in any way to procure employment are rendering, furnishing, or performing a service the gross receipts from which are subject to tax.

5.41(422) Printing and binding. Persons engaged in the business of printing or binding any printed matter other than for the purpose of ultimate sale at retail, are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. "Printing" shall include any type of printing, lithographing, mimeographing, multigraphing, typing incidental to multiple reproduction(s) listed herein, photocopying, and similar reproduction. The following activities are representative of services the gross receipts from which are subject to tax: The printing of pamphlets, leaflets, stationery, envelopes, folders, bond and stock certificates, abstracts, law briefs, business cards, matches, mechanical pencils and pens, campaign posters, and banners for the users thereof.

5.42(422) Promotion and direct mail. Persons engaged in the business in this state of promotion of an interest, plan, proposal, or any advancement of any personal, corporate, or property right or interest for the benefit of another or engaged in providing a direct mailing service are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. Where a fee is charged or received for promotion or direct mail as aforementioned for any person(s), the benefit of which promotion or direct mail accrues to such person(s) entirely in this state, such fee is deemed to be gross receipts subject to tax. Where such benefit accrues to person(s) both within and outside this state, that portion of the fee as shall have been charged or received for benefits accrued in this state is deemed to be gross receipts subject to tax. The portion of the fee subject to the tax shall be determined by the ratio that the points or locations where the benefit of promotion or direct mail may be realized in Iowa bears to the total points or locations where the benefits

of promotion or direct mail may be realized. Where fees are thus apportioned for tax purposes, it shall be the duty of the vendor of the taxable service to maintain records for the establishment and substantiation of the apportionment ratio.

5.42(1) Application of use tax. Persons using services described above obtained from sources outside of Iowa and used entirely in this state shall be subject to the Iowa use tax (subject to credit granted under section 423.25 of the Code) upon the gross cost thereof. Where persons use such services, obtained outside this state, both within this state and outside this state, the portion of the gross cost thereof subject to the tax shall be determined by the ratio that the number of Iowa locations where the benefits of promotion or direct mail may be realized bears to the total number of locations where the benefits of promotion or direct mail may be realized. Where gross costs are thus apportioned, it shall be the duty of the user to maintain records for the establishment and substantiation of the ratio.

5.42(2) U. S. postal charges. Where materials and messages are mailed to addresses in behalf of another, whether such other specifically furnishes addresses or otherwise, U. S. postal charges shall be deducted in determining gross taxable service.

5.43(422) Sewing and stitching. Persons engaged in the business of sewing and stitching are rendering, furnishing, or performing a service the gross receipts from which are subject to tax.

5.44(422) Sign painting. Persons engaged in the business of painting signs, banners, posters, and the renovation thereof are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. "Sign painting" shall mean the covering of a flexible or solid background with a compound, or compounds, for the conveyance of a message or announcement.

5.45(422) Shoe repair and shoeshine. Persons engaged in the business of repairing any type of footwear such as shoes, boots, and sandals are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. "Repair" shall include the mending or renovation of existing parts and the replacement of defective parts, but shall not include installation of new parts or accessories which are not replacements, of the footwear in any manner. "Shoeshine service" is meant to be the shining of shoes in connection with the repair thereof and shoeshine service administered alone would not require the vendor to charge the user of the service the specified tax.

5.46(422) Storage warehouse and storage locker. Persons providing facilities for storing any type of personal property are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. "Storage warehouses and storage lockers" shall in-

clude, but are not limited to, any facility provided for the purpose of storing household or building furnishings, foods, clothes, and furs, luggage, automobiles, airplanes, or any other tangible personal property. (See "Warehouses" *Infra*)

5.47(422) Telephone answering service. Persons engaged in the business of providing telephone answering service, whether by person or machine, are rendering, furnishing, or performing a service the gross receipts from which are subject to tax.

5.48(422) Test laboratories. Persons engaged in the business of operating a laboratory for testing any substance for any experimental, scientific, or commercial purpose are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. Testing directly related to personal health services is not subject to tax under this rule.

5.49(422) Termite, bug, roach, and pest eradicators. Persons engaged in the business of eradicating, or preventing the infestation by termites, bugs, roaches, and all other living pests are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. Persons who eradicate, prevent, or control the infestation of any type of pest by means of spraying are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. This rule is not to be so construed as to be at variance with subsection 3 of section 422.42 of the Code.

5.50(422) Tin and sheet metal repair. Persons engaged in the business of repairing tin or sheet metal, whether the same has or has not been formed into a finished product are rendering, furnishing, or performing a service the gross receipts from which are subject to tax.

5.51(422) Turkish baths, massage, and reducing salons. Persons engaged in the business of operating turkish baths, reducing salons, or in the business of massaging are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. "Turkish baths" shall mean any type of facility wherein the individual is warmed by steam or dry heat. "Reducing salons" shall mean any type of establishment which offers facilities or a program of activities for the purpose of weight reduction. "Massaging" shall include the kneading, rubbing, or manipulating of the body to condition the body, but not include any body manipulation undertaken as a practice of one or more of the healing arts. Persons engaged in the business of operating health studios which, as a part of their operation, offer any or all of the services of turkish baths, massages, or reducing facilities or programs shall be subject to tax upon the gross receipts from the above-named service.

5.52(422) Vulcanizing, recapping, or re-treading. Persons engaged in the business of recapping or retreading tires for any vehicle,

or vulcanizing any type of product, for others are rendering, furnishing, or performing a service the gross receipts from which are subject to tax.

5.53(422) Warehouses. Persons engaged in the business of warehousing goods for others are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. A "warehouse" is a building or place adapted to the reception and storage of goods and merchandise, and, in a more limited sense, is a building or place in which a warehouseman deposits the goods of others in the course of his business.

5.54(422) Weighing. Persons engaged in the business of weighing any item of tangible personal property are rendering, furnishing, or performing a service the gross receipts from which are subject to tax.

5.55(422) Welding. Persons engaged in the business of welding materials whether for the purpose of mending existing articles, adding to them, or creating new articles are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. "Welding" is the act of fusing materials by means of heating to a plastic, adhesive state and uniting them with one another or to a material commonly united to each.

5.56(422) Well drilling. Persons engaged in the business of drilling or digging wells for extracting water, oil, natural gas, or any other natural substance or for the introduction, distribution, storage, or disposal of a natural or contrived substance are rendering, furnishing, or performing a service the gross receipts from which are subject to tax.

5.57(422) Wrapping, packing, and packaging of merchandise. Persons engaged in the business of wrapping, packing, and packaging of merchandise are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. If the person "wraps, packs, or packages" merchandise as a service incidental to the sale of such merchandise and does not charge for the service, no sales or use tax in addition to that paid on the purchase price of the merchandise need be collected, or remitted. However, if a separate charge be made for wrapping, packing, or packaging, the gross receipts therefrom are subject to the tax.

5.58(422) Wrecking service. Persons engaged in the business of wrecking, tearing down, defacing, or demolishing tangible personal or real property, or any parts thereof, are rendering, furnishing or performing a service the gross receipts from which are subject to tax.

5.59(422) Wrecker and towing. Persons engaged in the business of towing any vehicle by means of pushing, pulling, or carrying, or freeing any vehicle from mud, snow, or any other impediment, including hoisting incidental

thereto, are rendering, furnishing, or performing a service the gross receipts from which are subject to tax. The gross receipts from service charges made when any person travels to any place to lift, extricate, or tow any vehicle or to salvage any vehicle are subject to the tax. Towing does not include transporting operable vehicles from one location to another where no operative aspect of such vehicle is integral to such transporting. A "vehicle" is that in or on which a person or thing is, or may be, carried from one place to another.

5.60(422) Buildings and structures erected for the improvement of realty. The gross receipts from services of persons engaged in the business of rendering, furnishing, or performing a service used directly in the performance of a building or construction contract on buildings or structures erected for the improvement of realty, where said contract was executed on or after October 1, 1967, are subject to tax.

The cost of building materials, supplies, and equipment, plus the amount of sales or use tax paid thereon, shall be excluded from gross receipts from services, when used in the rendering, furnishing, or performing of services of a building or construction contract on buildings and structures erected for the improvement of realty on or after October 1, 1967.

To arrive at "gross taxable services": (1) The *general contractor* may exclude from gross

services all cost of subcontracts listed as enumerated services and all materials plus sales or use tax paid thereon; and (2) The *subcontractor* may exclude from gross services all cost of materials plus the sales or use tax paid thereon.

The gross receipts from services are exempt from tax when rendered, furnished, or performed and used in performance of a building or construction contract on buildings and structures erected for the improvement of realty when such contract is sponsored by the federal, state, county, or municipal governments along with their agencies and instrumentalities.

[Filed September 30, 1967; amended
March 13, 1968]

INHERITANCE TAX

1.1(450) The Commissioners 1958 Standard Ordinary Mortality Table. Where death occurs on or after July 4, 1965, inheritance tax shall be computed by use of the Commissioners 1958 Standard Ordinary Mortality Table.

This rule is intended to implement chapter 450 of the Code.

[Filed July 5, 1955; amended September 4, 1959, December 8, 1959, February 26, 1960, January 18, 1961, February 8, 1961, May 19, 1961, December 7, 1961, December 28, 1961, July 31, 1963, May 13, 1964, November 17, 1965, March 8, 1966]

SECRETARY OF STATE

CHAPTER 1

UNIFORM COMMERCIAL CODE

1.1(554) Forms for financing statements.

1.1(1) The form to be used for filing financing statements pursuant to section 554.9403 of the Code shall conform to the following standards in order to be entitled to be filed for a fee of one dollar and fifty cents.

a. The forms shall be eight inches wide and either five or ten inches in length with all information printed on one side.

b. The debtor block shall be in the extreme upper left-hand corner.

c. The secured party block shall be immediately adjacent to the right of the debtor block.

d. Filing officers block shall be in the extreme upper right-hand corner.

e. The signature(s) of the secured party(ies) and debtor(s) shall be located in the lower right- and left-hand corners and identified accordingly.

f. It shall consist of three copies, to wit: An alphabetical, numerical and acknowledgment copy.

1.1(2) Forms not conforming to the above standards, but otherwise conforming to the

requirements of the law are entitled to be filed for a fee of two dollars and fifty cents.

1.1(3) Forms conforming to the above standards and accompanied by an additional document or writing are entitled to be filed for a fee of two dollars and fifty cents.

1.2(554) Forms for financing statement changes.

1.2(1) The form to be used for filing financing statement changes pursuant to section 554.9404, 554.9405 and 554.9406 of the Code shall conform to the following standards in order to be entitled to be filed for a fee of one dollar and fifty cents.

a. The form shall be eight inches wide and five inches in length with all information printed on one side.

b. The debtor block shall be in the extreme upper left-hand corner.

c. The secured party block shall be immediately adjacent to the right of the debtor block.

d. Filing officers block shall be in the extreme upper right-hand corner.

e. The form may be used for continuation, partial release, assignment, termination or amendment and must clearly indicate by

express use of one of the above-capitalized terms for which purpose it is being used.

f. The signature(s) of the secured party(ies) shall be located in a lower corner.

g. If an amendment, the signature of the debtor(s) shall be located in a lower corner.

h. It shall consist of three copies, to wit: An alphabetical, numerical and acknowledgment copy.

i. The acknowledgment copy of an original financing statement filing may be used for termination by execution of the termination portion thereof.

1.2(2) Forms not conforming to the above standards, but otherwise conforming to the requirements of the law are entitled to be filed for a fee of two dollars and fifty cents.

1.2(3) Forms conforming to the above standards and accompanied by an additional document or writing are entitled to be filed for a fee of two dollars and fifty cents.

1.3(554) Forms for requests of information.

1.3(1) The form to be used for filing requests for information, pursuant to section 554.9407 of the Code shall conform to the following standards in order to be entitled to be filed for a fee of two dollars.

a. The forms shall be eight inches wide and ten inches in length with all information printed on one side.

b. The debtor block shall be in the extreme upper left-hand corner.

c. The party requesting information block shall be immediately adjacent to the right of the debtor block.

d. Filing officers' block shall be in the extreme upper right-hand corner.

e. It shall contain a space for reporting file number, number of pages, date and hour of filing, and names and addresses of secured parties.

f. It shall consist of two copies, to wit: A copy for certification and a filing officer's accounting copy.

1.3(2) Forms not conforming to the above standards but otherwise conforming to the requirements of the law are entitled to be filed for a fee of three dollars.

1.4(554) Requests for copies. Requests for copies of filings must clearly specify the file number, number of pages and date and hour of filing for all copies requested.

1.5(554) Telephone requests. Requests for information on UCC filings by telephone will not be honored by the office of the secretary of state. County recorders are not required to honor such requests.

1.6(554) Real estate index. Financing statements and financing statement changes covering fixtures or crops and containing a description of real estate shall not be indexed in the real estate index in the county recorders' offices.

These rules are intended to implement chapter 554 of the Code.

[Filed November 14, 1967]

**CHAPTER 2
REGISTRATION AND PROTECTION OF
MARKS**

2.1(548) Classification. The following general classes of goods and services are established, but does not limit or extend the applicant's or registrant's rights, and a single application for registration of a mark may include any or all goods upon which, or services with which, the mark is actually being used comprised in a single class, but in no event shall a single application include goods or services upon which the mark is being used which fall within different classes of goods or services.

The said classes are as follows:

GOODS

Class	Title
1	Raw or partly prepared materials
2	Receptacles
3	Baggage, animal equipments, portfolio and pocketbooks
4	Abrasives and polishing materials
5	Adhesives
6	Chemicals and chemical compositions
7	Cordage
8	Smokers' articles, not including tobacco products
9	Explosives, firearms, equipments, and projectiles
10	Fertilizers
11	Inks and inking materials
12	Construction materials
13	Hardware and plumbing and steam-fitting supplies
14	Metals and metal castings and forgings
15	Oils and greases
16	Paints and painters' materials
17	Tobacco products
18	Medicines and pharmaceutical preparations
19	Vehicles
20	Linoleum and oiled cloth
21	Electrical apparatus, machines and supplies
22	Games, toys and sporting goods
23	Cutlery, machinery, and tools, and parts thereof
24	Laundry appliances and machines
25	Locks and safes
26	Measuring and scientific appliances
27	Horological instruments
28	Jewelry and precious-metal ware
29	Brooms, brushes and dusters
30	Crockery, earthenware and porcelain
31	Filters and refrigerators
32	Furniture and upholstery
33	Glassware
34	Heating, lighting and ventilating apparatus
35	Belting, hose, machinery packing, and nonmetallic tires

- 36 Musical instruments and supplies
- 37 Paper and stationery
- 38 Prints and publications
- 39 Clothing
- 40 Fancy goods, furnishings and notions
- 41 Canes, parasols and umbrellas
- 42 Knitted, netted and textile fabrics, and substitutes thereof
- 43 Thread and yarn
- 44 Dental, medical and surgical appliances
- 45 Soft drinks and carbonated waters
- 46 Foods and ingredients of foods
- 47 Wines
- 48 Malt beverages and liquors
- 49 Distilled alcoholic liquors
- 50 Merchandise not otherwise classified
- 51 Cosmetics and toilet preparations
- 52 Detergents and soaps

SERVICES

Class	Title
100	Miscellaneous
101	Advertising and business
102	Insurance and financial
103	Construction and repair
104	Communication
105	Transportation and storage
106	Material treatment
107	Education and entertainment

2.2(548) Assistance in applications. The secretary of state cannot give legal advice as to the nature and extent of the protection afforded by law nor advice as to the registrability of a specific mark except as questions may arise in connection with pending applications.

2.3(548) Incomplete or defective applications. An application will not be filed unless the application and accompanying facsimiles or specimens are in proper form, comply with the statutory requirements and are accompanied by the statutory fee. Specimens or facsimiles which are metal need not be submitted, a facsimile being preferable in order to avoid filing problems. Documents not filed will be returned with a statement of the reasons therefor.

2.4(548) Registration dates. The registration date is the date on which the mark is actually posted in the registration indices of the office of the secretary of state, after the application has been examined and found acceptable.

2.5(548) Form of application. The application shall be on a current form supplied by the secretary of state, be completed in the English language and plainly written or typed.

If the mark or any part thereof is not in the English language, it must be accompanied by a sworn translation.

2.6(548) Withdrawal of application. Prior to actual registration of the mark, the applicant, by written request, may withdraw the application.

2.7(548) Plurality of goods in single application. A single application may recite a plurality of goods, or a plurality of services, comprised in a single class, provided the particular identification of each of the goods or services be stated and the mark is used or has been actually used on or in connection with all of the goods or in connection with all of the services specified.

2.8(548) Single class in one application. A single application to register a mark for both goods and services or for goods or services in different classes will be rejected. Applications must be restricted to goods or services comprised in a single class.

2.9(548) Conflicts. Whenever application is made for registration of a mark or trade name which so resembles a mark registered in this state or a mark previously used in this state by another and not abandoned, as to be likely, when applied to the goods or services of the applicant, to cause confusion or mistake or to deceive, a conflict shall be declared to exist and registration denied.

2.10(548) Conflicts between applications. Conflicts between pending applications will be resolved on the basis of the claimed date of first use. The secretary of state may require affidavits and other proof of first use.

2.11(548) Record change on automatic transfer. In the event of mergers or consolidations of corporations, a certified copy of such documents may be accepted to transfer ownership of marks.

If the name of the owner of record of a mark is changed, and request for a change of the records is made, then written proof of such change can be made by sworn affidavit showing the manner or mode by which the change of ownership was made.

2.12(548) Change of address. If the registered owner of a mark changes the address set forth on the registration, then written notice of such change of address must be given to the secretary of state. Such notice must clearly identify the mark or marks involved and must request that the change of address be noted on the records of the registration on file.

[Filed December 11, 1970]

SOCIAL SERVICES DEPARTMENT

PUBLIC ASSISTANCE PROGRAMS OLD-AGE ASSISTANCE [Chapter 249, Code of Iowa]

249.4 Investigation

(a) In establishing eligibility for assistance, the welfare worker shall make a record of

the sources of information. It is not necessary to make documents a part of the record, but pertinent parts of the record or documents shall be quoted and the place where the record or document can be found shall be noted together with the worker's remarks or comments regarding their authenticity.

249.5 Persons Entitled to Assistance

(a) Every aged person who meets the eligibility requirements shall be entitled to assistance in old age.

249.6 (1) Residence

(a) Residence is that place in which a person is living for other than a temporary purpose. Residence once acquired, continues until the individual abandons it and acquires residence elsewhere. Temporary absence is the absence of a person during which time he intends to return or because of a change in intent, he does return. A temporary absence from the state shall not be deemed to interrupt residence requirements. A person who at any time has fulfilled the residence requirements, but later leaves the state, may qualify for assistance on return to the state regardless of the period of time he was absent. [Amendment filed December 17, 1957]

249.6 (2) Age

(a) Where acceptable information establishes the year in which the individual was born, but the month and day cannot be determined, July 1 shall be used as the anniversary date in establishing age.

249.6 (3) Citizenship

(a) Twenty-five years continuous residence shall be immediately preceding the application.

249.6 (4) In Public Institution

(a) A public institution for the purpose of administration of public assistance, is defined as a place which provides shelter or care to persons and is managed or controlled, in whole or part, by or through any public instrumentality, official or employee acting in an official capacity.

(b) When a recipient is temporarily hospitalized in a convalescent ward or a unit of a county home during which time he maintains his previous living quarters, assistance shall not be canceled but should be suspended. If he is released within ninety days, the welfare worker shall determine the number of assistance warrants which should be released to meet any fixed living expenses which accumulate during his hospitalization, and recommend that the rest of the warrants be canceled.

(c) A medical institution is a public hospital, licensed by the state department of health for treatment for other than tuberculosis or mental disease.

(d) A patient is one who is in a medical institution and is receiving planned medical care. A patient must have freedom of choice to enter and leave the medical institution, except that his choice of leaving may be limited by a requirement that medical care be completed before release. [Amended June 8, 1961]

249.7 Amount of Grant

(a) Need exists when an applicant lacks sufficient income and resources to meet established requirements.

(b) The following consumption items, which are considered essential for all individuals, should be included as requirements in all assistance plans:

Group I (Personal and Household)

<i>Personal Allowances</i>	<i>Household Allowances</i>
Food	Shelter
Clothing	Heating Fuel
Miscellaneous and Recreation	Lights
Personal Care and Supplies	Cooking Fuel
Health Allowance (OAA-AB)	Water
	Supplies and Replacements

Exception: Certain items mentioned above may not constitute a need in instances where the individual is in a nursing home, boarding home, etc.

Group II (Special Considerations)

<i>Continuous Specials</i>	<i>Temporary Specials</i>
Telephone	Medical Appliances
Insurance	Special Examinations
Transportation	Dental
Education	Special Clothing Needs, etc.
Board and Room	
Nursing Care	
Restaurant Meals	
Laundry, etc.	

[Amended October 20, 1958; April 22, 1959; April 25, 1960; January 22, 1963; March 11, 1970]

Types of Service for which Payment may not be made through the Medical Program

No payment will be made for:

1. Hospitalization or any supplies, services or procedures performed in the hospital including surgery, drugs, laboratory, X-rays, etc. Exception: Payment will be made (1) for services rendered in the outpatient department of a hospital (when the patient is not hospitalized over night), including X-rays, laboratory services and drugs, (2) to practitioners, without the necessary equipment, who refer their patients to the hospital for laboratory tests and X-rays on an outpatient basis.

2. Items which may be provided in the assistance plan. [Amended April 25, 1960]

3. Remedial Eye Care. (Provision for such care is made through another program.)

4. Medical or remedial services reasonably available through other publicly supported programs or from a private agency.

5. Medical or remedial care expense which may be met through various types of health insurance.

Recipients are eligible for medical and remedial care furnished in accordance with the department's quality, quantity and cost standards when the required care is not reasonably available to them from other sources without charge.

The quality, quantity and cost standards shall be developed by the department's technical and professional staff with the help and advice of professional committees.

In discharging the duties required by this

rule, the state board, with the advice and help of technical and professional advisors, shall develop standards based on the following principles.

1. Free choice by recipients of practitioners or druggists.

2. Protection of the rights and dignity of the patient, including confidential information regarding the patient's illness.

3. Provision for care, within the limitations of the program, of a quality and adequacy consistent with good professional practice, as economically as is compatible with good standards of care and fair compensation to the providers of care.

4. Determination of financial eligibility by the county department of social welfare.

5. Eligibility for public assistance entitles recipients to medical or remedial care provided through this program.

6. An established and continuous working relationship between the department of social welfare and the county and state committees.

7. Consideration of plans for medical and remedial care as a part of the over-all plan for assistance and service.

8. Co-ordination of medical and remedial services provided through public assistance funds with medical and remedial care reasonably available through other public and private resources.

Prior authorization by the county department is required for all services rendered by practitioners.

Payment for medical and remedial services shall be made directly to the vendor.

The department reserves the right to remove from participation in the program any practitioner or vendor who has violated the department's requirements for such participation.

The amount of any payment made directly to the vendor by the recipient, relatives or from other sources, including General Relief, shall be deducted from the established cost standard for the service provided, to establish the amount of the payment to be made by the department. Exception: This rule is not applicable to (1) supplementation from any source other than a responsible relative to meet the cost of certain services for which no payment is made by the department (oxygen, psychiatric treatment, physical therapy), when such services are prescribed by the recipient's physician and provided in a licensed custodial or nursing home; (2) supplementation from general relief for nursing care provided by a licensed hospital. [Amended December 13, 1960; November 15, 1962]

Additional special needs as have been outlined should be included when specified circumstances are present in a particular case and an explanation provided in the narrative. While the extent of need is determined by an evaluation of the individual's requirements

and resources available to meet such requirement, the grant is related to the deficit as a whole and not to a single item of expense. The right of individuals to expend their assistance as they wish is recognized. Any actual or implied control over the use of the grant will cause it to be regarded as restricted.

Recipients of public assistance should enjoy the same rights in connection with carrying on their activities and discharging their responsibilities as other members of the communities.

(c) No grant of less than \$1.00 shall be made. If the deficit is less than \$1.00 and the applicant can secure no resources to meet this small deficit, the county should recommend the minimum of \$1.00. [Amended January 18, 1961]

249.8 Income

(a) All assured income, whether in cash or in kind, shall be considered in establishing that need exists and in determining the amount of the grant.

(b) Only income which is actually available or forthcoming is considered.

(c) All income shall, as far as possible, be based on current monthly income.

249.9 Real and Personal Property

(a) Ownership of real or personal property that is already meeting one or more requirements or supplying a source of income for the family or individual is not necessarily available for a conversion into cash. Consequently, property should be considered from the standpoint of its conversion and maximum use in the interest of the welfare of the family or individual.

(b) Real property, other than the homestead, is a resource which should be liquidated unless due to particular circumstances of the family, the conservation of such property would result in a greater economy and resource to the recipient than would immediate liquidation.

(c) Out of state real property owned by an applicant or a recipient shall be subject to the same considerations in determining an individual's eligibility for assistance as for real property owned within this state. In determining eligibility, assessed value of out-of-state real property shall be adjusted to the same assessment to value ratio (sixty percent) as applies in this state. [Filed February 28, 1956; Amended June 26, 1957]

(d) Movable houses, although legally classified as personal property, shall be considered in the same category as real estate if the property is used as a homestead.

(e) All personal property should be valued at its present net cash value in order to determine eligibility. When the present cash value of a security, other than life insurance, owned by an applicant or, a recipient of assistance cannot be determined, the face value shall be used in determining eligibility.

(f) In determining eligibility, the balance

owing on a real estate contract to an applicant shall be considered in the personal property limitations category.

When an applicant is in immediate need of assistance, but is ineligible because he owns a real estate contract in excess of the statutory personal property limitations that cannot be immediately liquidated to obtain funds to meet his needs without undue financial sacrifice, the department may, after investigation, recommend that such person be granted assistance upon condition that he first assign all of such property to the state board, which assignment shall be subject to an equity in such person equal to the statutory amount or value which he would otherwise be entitled to retain.

Upon approval by the state board of such assignment, the state department shall proceed to liquidate such real estate contract for the best price obtainable, and shall first apply such proceeds toward any payment that might be due the assignor-recipient therefrom, the balance shall be paid into the old-age assistance revolving fund as reimbursement for assistance or other benefits paid to said assignor-recipient.

When a recipient sells property on contract, the sale must be approved by the state board and the contract assigned to the state department of social welfare. [Filed February 28, 1956]

When an individual, who has been granted assistance, desires to liquidate the real property in which he or his spouse has title, a Report on Proposed Sale or Trade of Real Estate, AA-4124-1, shall be completed by the county welfare worker and submitted to the state department for final approval of the transaction. The same procedure would be applicable when a life estate is transferred. (The value of a life estate is computed by taking four percent of the net value of the property, *at the time of transfer*, times the life expectancy of the individual.) To secure a release of the state's lien for old-age assistance paid and to assist in clearing title to the property sold, the recipient shall reimburse the state department of social welfare, from the proceeds of the sale, the amount of old-age assistance advanced to himself or his spouse or a portion thereof which can be covered by the proceeds. However, if the real property sold was (1) the homestead of the recipient, and he requests permission to use the proceeds from the sale for the purchase of a new homestead, the release of lien on the original homestead may be granted upon the approval of the state department; (2) other than the homestead the recipient may request permission, *at the time of sale*, to use the proceeds from the sale, or a portion thereof, for necessary expenditures on his homestead. In such instances it will be the responsibility of the welfare worker to *determine the need* for such expenditures and *establish that the expense* incurred is reasonable. This information shall be recorded on the Report on Proposed Sale or Trade of Real Estate. The release of lien may be granted by

the state department upon the recommendation of the county board of social welfare.

(g) Transfer of property for a reasonable consideration in the form of cash, payment of legally recognized debts contracted prior to the date of application or support furnished subsequent to the date of transfer, equivalent to the value of the property at the time of transfer, does not create any presumption of ineligibility.

A person who transfers or encumbers real property for the purpose of qualifying for assistance, or for the purpose of preventing reimbursement by the state is not eligible to receive assistance. [Filed June 23, 1955]

Note: A person found ineligible in this respect may become eligible by regaining the property transferred or by acquisition of property of equal value to that which was transferred. Eligibility may also be established by granting the state department of social welfare a lien equal to the value of the recipient's equity in the property *at the time of transfer*. [Filed August 25, 1955]

Determination of Intent to Transfer—In order to determine intent, the county worker must seek all available information regarding the date of the transfer, the type and value of the property transferred, the consideration received and the statements of disinterested or remotely interested parties regarding the purpose of the transfer. These facts must then be evaluated by the county worker and a decision reached relative to the purpose of the transfer.

(h) Suspension of Taxes—The tax assessed to the recipient, who holds only a partial interest in real estate, should not be suspended as it would not be practicable to suspend one portion of the tax and collect the other portion. If, however, the other person or persons who hold title jointly with the recipient petition for the suspension of the tax assessed to them under section 427.8 of the Code of Iowa and such petition is approved, the Tax Suspension Notice, PA-5525-1, should be filed to have the portion of the taxes suspended which are assessed to the individual holding the life estate and the taxes should be suspended under section 427.9 unless the holder of the life estate is compelled to pay the taxes or lose his interest.

It is only necessary to file the Tax Suspension Notice once during the continuous receipt of old-age assistance unless the recipient's interest in the property changes. Upon the death of an old-age assistance recipient, upon cancellation of assistance or upon a change in the recipient's interest in the property, the county auditor shall be notified by the county director of social welfare. The Tax Suspension Notice may be used for this purpose after checking the explanatory portions of the form. If the canceled recipient is later reinstated, a new Tax Suspension Notice, PA-5525-1, should be forwarded to the county board of supervisors.

In all instances, homestead tax credit should be requested for property which is used as a homestead even though the taxes assessed to such property have been suspended.

(i) The value of personal property shall be the cash or loan value available on such property. If the value of personal property is in excess of the limitations, the individual is not eligible for assistance.

To re-establish eligibility, excess personalty of the recipient may be (1) remitted to the state department; (2) used, during a period payments are in suspension or following cancellation, for general living expenses or other reasonable expenditures; (3) used to purchase or apply on the purchase of a homestead; (4) used, with the permission of the state department, to reduce a mortgage on his homestead; (5) used to purchase a burial contract within thirty days of receipt of such personalty. Items (3), (4) and (5) are applicable in the case of an applicant. To establish eligibility an applicant may also use excessive personalty for general living expenses or other reasonable expenditures.

Prior arrangements for funeral expenses, made by an applicant for or recipient of assistance, must be in the form of a written, irrevocable contract, which provides for placing the funds so invested with a disinterested person (nonrelative), firm or institution, beyond the control of the recipient. The total amount of the contract may not exceed \$500. If interest is paid on the contract it shall be considered as income and taken into consideration in determining the amount of the grant.

Assignment—(Notes, Bonds, Interest in Estates and Other Securities)—Any personal property, other than insurance, owned by an applicant for or recipient of old-age assistance may be assigned to the department of social welfare only when the security cannot be liquidated at the present time, but has future potential value in excess of personal property limitations or when the personal property consists of an unrecorded purchase contract for real property.

Except when assigning an unrecorded purchase contract, the applicant or recipient may (1) request the department to accept assignment of only that portion of the property which will reduce the unassigned property to within eligibility requirements, or (2) request the department to accept assignment of the total assets with an agreement that the department shall refund to the recipient, such portion of the proceeds which, when added to other personal property assets on hand, would not affect his eligibility for assistance.

If personal property was exempted at the time assistance was granted because the total value did not exceed the maximum limitations and such property is later liquidated, the proceeds from liquidation even though received in monthly payments, shall be exempt from use for general living expenses provided such proceeds plus other personal property hold-

ings do not at the time of liquidation or in the future exceed the maximum limitation. If the proceeds from liquidation exceed the limitations the recipient is not eligible for assistance until the amount in excess of the maximum exemption has been (1) remitted to the state department; (2) used, during a period payments are in suspension or following cancellation, for general living expenses or other reasonable expenditures; (3) used to purchase or apply on the purchase of a homestead; (4) used, with the permission of the state department, for payment of a mortgage on his homestead when the individual is in danger of losing his homestead because of an encumbrance; (5) used to purchase a burial contract within thirty days of receipt of such personalty. Items (3), (4) and (5) are applicable in the case of an applicant. An applicant may also use excessive personalty, prior to the receipt of assistance, for general living expenses or other reasonable expenditures.

Liquidation of Personal Property Assigned to the State Department of Social Welfare—Notes, Bonds, Interest in Estates and Other Assigned Securities. Assigned property shall be held in trust in the state department of social welfare until liquidated. The county welfare worker should check periodically to determine whether the property can be liquidated and so notify the state department. A check should be made when a reinvestigation of continued need is completed and any other time it is deemed advisable. Upon approval of the recipient, the property will be liquidated at such time as it has a market value.

If the assigned property is liquidated during the lifetime of the recipient, the state department shall first be reimbursed for any expense assumed in protecting the value of the property. From the balance, the department will (1) refund to the recipient, upon county recommendation, an amount to which he would be entitled without affecting his eligibility for assistance; (2) refund to the recipient an amount sufficient to cover the cost of repairs on the homestead, on receipt of a recommendation from the county department setting forth the verified expenditures required; (3) reimburse the department of social welfare for assistance issued; and (4) any remaining balance shall be refunded to the recipient, thus furnishing him with resources to support himself. [Amended February 17, 1959]

If the assigned property is not liquidated or the refund warrant is not issued until after the death of the recipient, the proceeds will be used (1) to reimburse the department of social welfare for any payments made in protecting the value of the property, (2) to reimburse a person or persons who have established an equitable interest in such property and such interest was acknowledged at the time assignment was made, (3) to reimburse the department of social welfare for assistance paid, and (4) any balance remaining shall be released to the estate or the heirs of

the recipient. [Amendment filed December 2, 1957]

(k) The monthly requirements of an applicant will not be affected by ownership of paid-up insurance. However, when the cash value of the paid-up insurance plus other personal property holdings, is in excess of personal property limitations, the applicant has a resource which disqualifies him for assistance unless an adjustment is made.

The cost of premium payments on a large insurance program, regardless of whether the client or a relative pays the premium, would require the use of income which should usually be available for general living expenses. However, unwillingness on the part of the client to adjust a premium paying policy, which has a face value in excess of the amount on which premiums can be allowed, will not cause ineligibility unless the cash value plus other personal property holdings is in excess of personal property limitations permitted under the various programs.

When an applicant is insured in a group policy issued during his employment and the employer is continuing to pay the premiums after termination of employment, the insured has little jurisdiction over the continuance of the insurance coverage. This type of policy, in most instances, has no cash value, no non-forfeiture value is available if premiums are discontinued, and the premium payments are usually small. Because of these factors, it does not seem wise to generally suggest an adjustment in the policy, however, there may be a few cases where the advisability of an adjustment is indicated. All facts regarding the policy, i.e., amount of premiums, face value, premium payer, beneficiary, etc., and the recommendation of the county department as to retaining such insurance in its present status should be included in the narrative report.

(l) If the value of a mobile home owned by the applicant or recipient when added to other personalty causes the total value of personal property to exceed limitations, the applicant or recipient shall offer to transfer title of the mobile home to the state board. This will be required as a condition of granting assistance unless the applicant or recipient chooses to dispose of the mobile home. Willingness on the part of the applicant or recipient to transfer title satisfies the eligibility requirement in this respect. Decision will be made by the state board. If no transfer of title is required, eligibility will not be affected and the value of the mobile home will be disregarded in subsequent determinations of the value of personal property. [Filed August 6, 1963]

249.11 Applications

(a) Each applicant shall be advised, during the intake interview, that he may expect to receive assistance or a notice of rejection within sixty days from the date of filing his application. He shall also be advised of his

right to request a fair hearing if the time limit is exceeded.

(b) The application process in the county should be completed within a thirty-day period. The term "application process in the county" includes the period from the date of application to and including the date action is taken and the application and change of status are mailed to the state office.

(c) When a decision is made on an application, a revision in the amount of assistance, or any other action taken by the agency, the "Notice of Decision" shall carry a statement as to the right of appeal.

(d) At such fair hearings the appellant shall be given the opportunity to produce and discuss testimony; to produce and question witnesses, to review the basis of the order or determination about which he is aggrieved; to examine all documents and records and to offer evidence in explanation or rebuttal of the evidence introduced against his claim.

(e) All evidence submitted at the hearing shall be recorded by a competent reporter. The evidence shall be transcribed by this reporter and furnished to individual members of the state board. A copy of the transcript shall be available for perusal by the appellant if requested.

(f) The decision of the state board shall be based solely upon such other documents as are referred to at the hearing and which the appellant has had the opportunity to inspect.

(g) The decision shall be made and entered into the board minutes within ninety days after the hearing.

249.13 Assistance Grant

(a) All warrants will be mailed by the state department of social welfare to the recipient at his last address, or to his legally appointed guardian. No warrant will be mailed to a general delivery address. If the recipient has moved from the address to which his warrant is mailed, the postmaster shall return the warrant to the state department of social welfare, where it will be held until the new address is received.

(b) A reinvestigation or review of old-age assistance cases shall be made at least every twelve months.

249.17 Receipt of Assistance

(a) If the old-age assistance new approval or reinstatement grant is received in the state department of social welfare on or before the fourteenth day of the month, the first of the current month shall be the effective date. However, if received in the state department after the fourteenth but on or before the last day of the month, the first of the following month shall be the effective date.

(b) Assistance may be effective the first day of the month in which the applicant reaches his sixty-fifth birthday.

249.18 Funeral Expense

It is expected that the estate of a deceased recipient shall pay for merchandise and services connected with the decedent's burial up to an amount not in excess of \$350.00. In the event the estate of the deceased has insufficient assets it is expected that relatives and friends may wish to pay the burial expense, or such parts thereof as they may be able. Should it occur that neither the deceased's estate nor relatives or friends are able to pay the burial expense, then the state assistance funds may be so applied. In the event there are not such other funds available to pay such burial expenses, then upon proper application to the county board of social welfare, such burial expenses as are hereinafter set out up to the amount of \$225.00 may be paid on approval of the state department of social welfare from the old-age assistance fund.

(a) *State Payment*—Usual funeral expenses up to the amount of \$175.00 for the burial of a deceased recipient of old-age assistance may, at the discretion of the county board, with the approval of the state department, be paid from the old-age assistance fund and when so allowed, shall include the following when not available from the resources of the deceased, or relatives or friends.

- (1) Preparation and embalming of the body.
- (2) Providing a standard burial casket. Minimum specifications for same should generally include construction of good quality, finished wood, covered with crepe or other material of comparable quality, fully upholstered and fully lined, trimmed with six short or two long bar handles; or casket of comparable value and appearance.
- (3) Providing a pine or other wood outside burial case.
- (4) Providing a hearse for all necessary transportation of the body within a radius of twenty miles of the place of death.
- (5) Arranging for funeral rites at a funeral home, home of the deceased, fraternal or lodge hall, church or other proper place.

Further, in the absence of assistance from relatives or friends or assets in the decedent's estate to apply toward such burial, the county board, with the approval of the state department, may authorize an additional \$50.00 or any part thereof when such additional sum is reasonably necessary to provide burial lot, grave opening or clothing for the decedent. In any event, burial expense paid by the state from assistance funds shall not exceed \$225.00 as hereinabove provided when all such burial expenses are paid by the state.

(b) *Payment by Relatives or Friends or from Estate of Deceased Recipient*—Burial expenses hereunder may not exceed \$350.00 when paid from the estate of the deceased recipient or when relatives and friends of the deceased provide extraordinary expenses to supplement the usual burial expenses up to \$175.00 paid from the state old-age assistance fund.

Extraordinary expenses hereunder which may be paid by relatives, friends or the decedent's estate shall include:

1. Steel or concrete vault.
2. Oversize casket required because of the excess size or deformity of the body.
3. Transportation of the body for a distance of more than twenty miles from place of death.
4. Cremation of the body at the request of the decedent or relatives.
5. Services of a second funeral director in another community in connection with interment.

However, in computing the total burial expense limitation of \$350.00, such reasonable costs for burial lot, grave opening, clothing, transportation other than of the deceased, clergyman, music and a concrete burial box, when required by the cemetery, at the lowest cost available to meet the minimum requirements, may be paid by relatives and friends, or under arrangements previously paid for by the deceased prior to death, and same shall not be considered as usual or extraordinary expenses as hereinbefore set out. [Amended May 26, 1958]

Relatives and friends may be able to provide usual expenses for burial lot, grave opening and/or clothing in lieu of allowance of such expenses from the state old-age assistance funds. In such instance, the \$350.00 limitation on burial expenses applies only when the state pays a part of the basic burial expenses up to the amount of \$175.00 as hereinabove set out. Further, the \$350.00 limitation does not apply to such expenses as may have been paid prior to the death of the recipient: provided same were disclosed to the state welfare department so that they might be properly considered in determining the deceased recipient's eligibility for assistance payments.

In the event any payment up to \$175.00 is allowed from the state assistance fund for usual burial expenses, relatives, friends or the estate of the deceased may provide additional usual or extraordinary expenses up to a total amount of \$350.00 for burial of the deceased. This limitation includes the total funds expended, both by the state and by relatives, friends or the estate of the deceased and applies when the state has not provided any additional expense for burial lot, grave opening and/or clothing, but has provided any part or all of the usual burial expense.

In the event the deceased recipient may have assigned a life insurance policy or similar death benefit contract to the state department in order to become or remain eligible for old-age assistance payments from the state, such amounts payable thereunder up to \$350.00 as may be determined proper under the circumstances, may be released by the said state department to apply toward the burial expenses of such a decedent. [Filed June 26, 1957]

249.26 Relative's Liability

- a. At the discretion of the county board of

social welfare, assistance may be denied on the basis of the relative's ability to support if it appears that such a step will result in assumption of the responsibility by the relative.

b. The applicant or recipient or the welfare agency authorizing assistance may begin suit at any time to compel support by legally responsible relatives.

c. Confidential Report—Responsible Relative, Form PA-2118-1, will be submitted to those relatives living within the state and Form PA-2120-1 to those relatives residing outside of Iowa. The proper form will be mailed or given to all children regardless of location immediately after the interview with the applicant. Thereafter the form must be sent to responsible relatives of the recipient at least every two years unless:

1. The relative is an inmate of an institution.
2. The relative is a member of a religious order or other group in which the individual is permitted to have no income.
3. The county department has knowledge that the relative is entirely dependent upon O.A.S.I., other type of retirement income or other income which is clearly inadequate to provide a contribution.

4. The relative is a recipient of public assistance. [Filed June 23, 1955]

d. Guide for Determining Relative's Liability—The procedures for determining the liability of a responsible relative are predicated upon the laws and regulations governing the Iowa individual income tax return. If the responsible relative filed a federal individual tax return the information regarding his income should be adjusted in such a manner as to permit the computation of his liability on the same basis as though he had filed an Iowa Return. The table below sets forth that portion of net taxable income to which the responsible relative is entitled as an exemption.

In accordance with the provisions of the Code of Iowa, the following table of exemptions has been established on the basis of those personal exemptions allowed in the filing of Iowa individual income tax returns plus an additional allowance of seventy-five percent to compensate for the present day cost of living.

Marital Status of Responsible Relative	Yearly Exemption of Net Taxable Income
Single person	\$2,625.00
Man and wife	4,083.00
Man, wife and 1 dependent	4,667.00
Man, wife and 2 dependents	5,250.00
Man, wife and 3 dependents	5,687.00
Man, wife and 4 dependents	6,125.00
Man, wife and 5 dependents	6,562.00
Man, wife and 6 dependents	7,000.00
Man, wife and 7 dependents	7,350.00
Man, wife and 8 dependents	7,700.00
Man, wife and 9 dependents	8,050.00
Man, wife and 10 dependents ...	8,400.00

In the event the relative or his spouse is blind or over the age of sixty-five the following

exemptions are applicable effective January 1, 1964:

Single person (blind or aged) ...	\$4,083.00
Single person (blind and aged) ..	5,250.00
Married couple	
Entitled to three tax credits ..	5,250.00
Entitled to four tax credits ...	6,125.00
Entitled to five tax credits	7,000.00
Entitled to six tax credits	7,700.00

[Amendment filed December 31, 1957; August 6, 1963]

Any net taxable income over and above the exemptions listed in the above table is considered as the basis for computing the amount of the relative's annual contribution. The amount of such contribution is determined by applying the following formula:

Twenty percent of the first \$1,000.00 or any part thereof in excess of the exemption.

Thirty percent of the second \$1,000.00 or any part thereof in excess of the exemption.

Forty percent of the third \$1,000.00 or any part thereof in excess of the exemption.

Fifty percent of the fourth \$1,000.00 or any part thereof in excess of the exemption.

When a responsible relative is widowed or separated from his spouse and maintains a home for his dependent children his exemption shall be the same as that of a man and wife with dependent children.

249.29 Requirements of Spouse

(a) The common household requirements of an ineligible spouse shall be included as a requirement of the recipient unless such needs can be met by another grant of assistance aside from general relief. The following items are considered as items of common household expense: Shelter, fuel, utilities, supplies and replacements, household insurance and any other requirement common to the operation of the household.

MEDICAL ASSISTANCE FOR THE AGED [Rescinded March 11, 1970]

AID TO THE BLIND (Chapter 241, Code of Iowa)

241.1 Definition of Blindness

An individual approved for blind assistance shall be one who has no vision, not more than 20/200 central visual acuity in the better eye, with correcting glasses or a field defect in which the peripheral field has contracted to an extent that the widest diameter of visual field subtends at an angular distance of no greater than twenty degrees.

241.2 Citizenship and Residence

1. Persons who qualify for applying for citizenship must complete naturalization within the time designated by law.

2. Residence is that place in which a person is living for other than a temporary purpose. Residence once acquired continues until the individual abandons it and acquires residence elsewhere. Temporary absence is the

absence of a person during which time he intends to return or because of a change in intent, he does return. A temporary absence from the state shall not be deemed to interrupt residence requirements. A person who at any time has fulfilled the residence requirements but later leaves the state, may qualify for assistance on return to the state regardless of the period of time he was absent. [Amendment filed December 17, 1957]

241.3 Eligibility

See (a) and (b) under 249.7 (old-age assistance).

(c) In determining eligibility for aid to the blind, it is necessary to take into consideration the value of real and personal property belonging to the applicant, his spouse and dependent children.

(d) The homestead, household goods and heirlooms are exempted. Cash surrender value of life insurance for the applicant or his spouse, not to exceed a total of \$500, is also exempted. A reserve of other property, real and/or personal, by the applicant and his dependents is permitted, provided the net value does not exceed \$500 for the applicant plus \$200 for his spouse and each dependent child.

(e) The net market value of real and personal property (other than the allowed exemptions) shall be used as a basis in determining the total value of property. When the net market value of property is less than the amount exempted, but represents a type of property subject to fluctuations in value, it is the responsibility of the welfare worker to make periodic checks as often as may be necessary to determine continuing eligibility.

(f) When a recipient sells his home the proceeds shall be considered as a part of his total resources in determining continuing eligibility, unless immediately used for the purchase of another home.

(g) The homestead consists of the house, used as a home, and may contain one or more contiguous lots or tracts of land, including the buildings and appurtenances. If within a city or town plat, it must not exceed one-half acre in extent, otherwise it must not contain in the aggregate more than forty acres.

(h) Earned income is defined as income in cash or in kind earned by a needy blind individual through the receipt of wages, salary, commissions, or profit from activities in which he is engaged as a self-employed individual or an employee. Such earned income may be derived from his own employment, such as business enterprise, farming, rental of rooms when activities are required of the recipient such as cleaning, making beds, etc.; or derived from wages or salary received as an employee. It includes earnings over a period of time for which settlement is made at one given time, as in the instance of farm crops, livestock and poultry.

241.6 Applications

(a) The application process in the county

should be completed within a 30-day period. The term "application process in the county" includes the period from the date of application to and including the date action is taken and the application and change of status are mailed to the state office.

241.7 Investigation

(a) In establishing eligibility for assistance the welfare worker shall make a record of the source of the information. It is not necessary to make documents a part of the record, but pertinent parts of the record or documents shall be quoted and the place where the record or document can be found shall be noted together with the worker's remarks or comments regarding their authenticity.

241.8 Examinations

An applicant requesting aid to the blind may select an examiner from either the approved lists of ophthalmologists or approved lists of optometrists.

241.11 Appeals

See a, b, c, d, e, f, g, section 249.11 (old-age assistance).

241.12 Periodic Reinvestigations

(a) A reinvestigation or review of aid to the blind cases shall be made at least every twelve months.

241.17 Funeral Expense

(a) The deceased may be eligible for burial benefits provided:

1. He has no relatives able to meet the expense.

2. The estate left by the decedent or proceeds from life insurance, funeral benefits, burial association, society or Old-Age and Survivors Insurance, which are left to the decedent's estate or beneficiary, are not sufficient to provide burial costs. (If the assets mentioned are used to pay for a steel or concrete vault or other extraordinary expenses, the decedent would be eligible for burial benefits of not to exceed \$175 provided the total cost of the burial less exempted items, available prior to the death of the aid to blind recipient or provided by relatives or friends, does not exceed \$350.)

(b) Extraordinary expenses which may be paid by relatives or friends or from the estate of the decedent may not increase the total burial cost to more than \$350 and may be incurred for the following items: 1. Steel or concrete vault. 2. Oversize casket required because of the excess size or deformity of the body. 3. Transportation of the body for a distance of more than twenty miles from place of death. 4. Cremation of the body at the request of the decedent or relatives. 5. Services of a second funeral director in another community in connection with interment.

(c) A reasonable cost for the burial lot, clothing, sexton service, automobiles furnished by friends or relatives, clergyman and music need not be included in the \$350 maximum

when such items are furnished by friends, relatives, or were contracted for or purchased prior to the death of the recipient.

(d) Any funeral director filing a claim with the state department of social welfare for \$175 or any part thereof to cover burial expenses of a deceased recipient shall provide at least the following services and merchandise:

1. Preparation and embalming of the body.
2. A standard burial casket, the minimum specifications for which shall be octagon end, three panel, flat top, built of wood of good quality, fully upholstered and fully lined, trimmed with six short or two long bar handles or a casket of comparable value and appearance.
3. A pine or other wood outside burial case.
4. Furnish a hearse for all necessary transportation of the body within the radius of twenty miles of the place of death.
5. Clothing must be furnished by relatives or friends or provided from the accessories of the deceased. If no clothing is made available, it will be furnished by the funeral director.
6. Funds for burial space and sexton fees will be provided by relatives, friends, or furnished from personal resources of the deceased, such as Old-Age and Survivors Insurance lump-sum benefits, etc. In the absence of relatives and friends or personal resources, the funeral director will provide a burial space other than in a "pauper's field" and sexton fees. (If provided from personal resources of the decedent the total cost of the funeral may not exceed \$350).
7. Make arrangements for the funeral rites at the funeral home, at the home of the deceased, at a fraternal or lodge hall, at a church or other reasonable place in the absence of relatives or friends being available to make such arrangements. [Filed June 23, 1955; amended June 9, 1959]

241.22 Financial Responsibility

(a) When a recipient of blind assistance leaves the county in which he is receiving assistance, for the purpose of attending college, a trade or other type of school, in another county, and it is established that the absence is temporary for the educational purposes only, the financial responsibility is not transferred.

(b) When an individual receiving blind assistance also receives remedial care, the county responsible for the cost of remedial care is the same as that responsible for the assistance. If the applicant for remedial care is not receiving blind assistance, the financial responsibility for such remedial care rests with the county where he is living at the time the application for remedial care is filed.

AID TO DEPENDENT CHILDREN
(Chapter 239, Code of Iowa)

239.1 (4) Definitions.

(a) The relative who is granted assistance

must be an adult over twenty-one years of age or reached his majority through marriage.

(b) A child is eligible for the entire month in which he reaches his sixteenth or eighteenth birthday provided the eighteenth birthday is on any day other than the first day of the month. [Amended July 1, 1958]

(c) Living with relatives implies primarily the existence of a relationship involving an accepted responsibility on the part of a relative for the child's welfare; it includes the sharing of a common household and the presence of the relative and the child in the residence maintained by the former.

(d) "Home" is the family setting maintained or in the process of being established, as evidenced by the assumption and continuation of responsibility for the child by the payee. Usually the child shares the same household with the payee. A home exists, however, so long as the payee assumes responsibility for the care and control of the child even though circumstances may require temporary absence of either the child or payee from home.

(e) The child must be living in the home of one of the following adult relatives who is the applicant and at least twenty-one years of age or reached his majority through marriage:

- Father—Adoptive Father
- Mother—Adoptive Mother
- Grandfather—Grandfather-in-law (meaning the subsequent husband of the child's natural grandmother, i.e., step-grandfather)—Adoptive Grandfather
- Grandmother—Grandmother-in-law (meaning the subsequent wife of the child's natural grandfather, i.e., step-grandmother)—Adoptive Grandmother
- Great-grandfather—Great-great-grandfather
- Great-grandmother — Great-great-grandmother
- Stepfather
- Stepmother
- Brother—Brother-of-half-blood—Stepbrother
- Brother-in-law—Adoptive Brother
- Sister—Sister-of-half-blood—Stepsister
- Sister-in-law—Adoptive Sister
- Uncle—Aunt (of whole or half blood)
- Uncle-in-law—Aunt-in-law
- Great Uncle—Great-great Uncle
- Great Aunt—Great-great Aunt

} But not their parents

A spouse of any person named in the above groups may also act as payee even though the marriage is terminated by death or divorce. Cousins, nephews and nieces are not considered within the scope of the provisions of this program.

(f) The most authentic records for determining the relationship of the child to the applicant are birth certificates, marriage, hospital and physician records. In the absence of these records, other sources of evidence may be used to establish the relationship of the child and applicant.

(g) When a guardian is appointed for the recipient or the dependent child at the request of the county board, as a condition for grant-

ing assistance, assistance payments shall be made to such guardian. If a guardian has previously been appointed at any time under other conditions, such guardian will have no effect upon the payment of aid to dependent children. [Filed June 23, 1955]

(h) Assistance shall be continued to the recipient with whom the child has been living when the child leaves the home for a temporary period, provided the recipient maintains control over the child during such absence.

(i) The major consideration in establishing dependency caused by continued absence from the home is to establish the reason for the absence as it relates to continued absence rather than placing a time limit in which any parent may be absent before considering such absence continuous.

(j) "Desertion or abandonment" exists when the parent, or parents or stepparent, has left the family to avoid responsibilities of support. The parent or stepparent must be absent and estranged from the family, not out of the home merely to secure employment or for other reasons which separate him from his family only on the basis of living arrangements.

(k) In the case of divorce, verification of this fact shall be made, together with the report of support and custody of the children, as ordered by the court. Divorce may be verified by court records in the county where the divorce was granted.

(l) In the case of imprisonment, the parent's continued absence from the home can be clearly and factually established and its probable duration determined. Verification must be made and facts properly recorded in the case record.

(m) If the parent is committed or admitted to an institution on an order by the court for any reason including insanity and epilepsy, or an order is issued by the proper authorities for admittance to a sanatorium for tuberculosis, the parent may be considered absent from the home. A child who has been committed by the court to a public or private institution but has not been admitted into an institution and is residing in the home of relatives while awaiting admittance may be eligible for aid to dependent children if certain regulations are followed.

The county welfare department rather than the court must be permitted to have complete control in determining the child's eligibility for assistance and the amount of assistance. The relative with whom the child is living (applicant) must have control over the expenditures of the assistance payment for the benefit of the child.

(n) Induction into military service may be a factor which has deprived a child of a parent's care by reason of the parent's continued absence from home. Conditions which might develop in the home as a result of the parent's induction might also create dependency. After taking into consideration all available re-

sources and reason for dependency, a child who meets these eligibility factors may be eligible for aid to dependent children.

(o) If a child is deprived of support or care of a natural parent, the presence in the home of an able-bodied stepparent does not disqualify a child for aid to dependent children, provided the child is in need and meets other eligibility factors. The financial ability of a stepparent is to be considered as a resource and it is to be noted that income and property of stepparents is to be given the same consideration as that of parents.

(p) Aid to dependent children is available to a child of unmarried parents the same as to a child of married parents if the eligibility requirements are established.

(q) When the mother's pregnancy has been determined by medical diagnosis the unborn child may be included with other children in the eligible group. Reference to the child prior to birth shall be to "Unborn Child" insofar as case records are concerned.

(r) Death applies to the death of the father or mother.

(s) An incapacitated parent is one who, because of a mental or physical condition, is unable to support the dependent child. The determination of incapacity must take into consideration the psychological, environmental and economic factors as well as the physical and/or mental condition of the parent. Incapacity of a parent applies to the father and/or mother, whether such parent is in the home or living elsewhere. The parent may be totally and permanently incapacitated or the condition may be such that he is partially or temporarily incapacitated. It is the effect of incapacity that is important rather than the extent of injury. The welfare worker will need to study carefully the nature of incapacity, causes for the condition and make a careful analysis of the medical reports, together with the social and occupational factors involved in order to establish that the parent is incapacitated. It is not necessary to establish what a parent would have provided for a child had the incapacity not existed. The existence of physical or mental incapacity establishes this eligibility requirement. Mental incapacity is often reflected by marked instability, chronic alcoholism, inability to secure or retain employment and physical symptoms with no organic base. An examination together with the doctor's evaluation and a complete social and economic history which points up the individual's instability, will be considered acceptable evidence in establishing incapacity. The welfare worker should work closely with the entire family unit in helping the family and the incapacitated parent make a satisfactory adjustment. Every effort should be made to encourage the parent to follow the treatment or plan recommended by the physician, psychiatrist or welfare worker in order that he may eventually be able to assume responsibility for the support and care of his family. The welfare worker shall record sufficient in-

formation to establish the incapacity of the parent as well as the effort made by the agency to help the family adjust to its circumstances. Information should also be recorded relative to employment history, training, skills and attitudes. Such information will enable the agency to evaluate the employment opportunities in relation to the individual's handicap. An interpretation of available resources, for those for whom vocational rehabilitation service might help to correct or relieve the condition causing incapacity, should be provided. In the absence of a permanent disability, periodic re-evaluations should be made to determine continued eligibility insofar as this factor is concerned.

(t) Any child who is otherwise eligible between the ages of sixteen and eighteen years who is making his home with the applicant and regularly attending school is eligible for aid to dependent children. A child will be considered as regularly attending school if (1) carrying a program of supervised education or vocational training consistent with the standards of an appropriate educational or vocational education authority, either as a part of a regular school program or under special arrangements adapted to the individual child's educational needs, or (2) if his attendance at school is interrupted by unusual circumstances such as illness or convalescence.

239.2 (1) Suitable Home

(a) The home should be deemed suitable until such time as the court has ruled otherwise and, as the result of such action, the child has been removed from the home. It is the responsibility of the worker, however, when making an investigation, and conditions are revealed which endanger the child's welfare and security, to make such facts known to the proper authorities in order that consideration may be given to need for action in the case. The intangible qualities of a home—the social and emotional elements, including a sense of security—are essential to character building and are not necessarily conditional upon physical surroundings. In many instances a below-standard home situation may be remedied by adequate assistance and service.

239.2(2) Residence

(a) The child shall have resided in the state for one year immediately preceding the application for assistance or have been born within one year immediately preceding the application, if the parent or other specified relative with whom the child is living has resided in the state for one year immediately preceding the birth of said child. Residence is that place in which a person is living for other than a temporary purpose. Residence once acquired continues until the individual abandons it and acquires residence elsewhere. To reside in or have one year's continuous residence in the state immediately preceding application is to have residence in the state twelve months prior to date of application and not abandon

such residence and acquire residence elsewhere during the twelve-month period. Temporary absence is the absence of a person during which time he intends to return or because of a change in intent, he does return. Exception: In aid to dependent children intent at the time of leaving the state is the governing factor. However, absence from the state for a period of less than twelve months shall not be considered as interrupting residence. [Amendment filed December 17, 1957 and September 9, 1960]

239.2(3) Residence in Institution

(a) When a child, or a recipient to whom the assistance payment is made, is temporarily hospitalized in a tax-supported hospital, during which time he maintains his previous living quarters, assistance should not be suspended or canceled. However, when the recipient is hospitalized, the welfare worker should assist in planning for the care of the child during the absence of the recipient. If the recipient is absent for a long period of time, assistance should be canceled and, if possible, an application filed by the person who assumes responsibility for the child.

239.3 See (a), section 241.6 (Aid to the Blind).

239.4 See (a), section 241.7 (Aid to the Blind).

239.5 Determining Amount of Assistance

(a) In determining eligibility for aid to dependent children, it is necessary to take into consideration the value of real and personal property belonging to the parent(s) and the child for whom application for aid to dependent children has been made. The homestead, household goods, and heirlooms are exempted. Cash surrender value of life insurance for either or both parents, not to exceed a total of \$500.00 is also exempted. A reserve of property, real and/or personal, by the eligible group, in addition to the exemptions is permitted, provided the net value does not exceed \$500.00 for the first person in the eligible group plus \$200.00 for each additional person in the eligible group. The policy does not apply to property owned by an applicant or recipient, who is other than a parent, and not a member of the eligible group.

(b) The following consumption items, which are considered essential for all individuals, should be included as requirements in all assistance plans:

Group I. (Personal and Household)

<i>Personal Allowances</i>	<i>Household Allowances</i>
Food	Shelter
Clothing	Heating Fuel
Miscellaneous and Recreation	Lights
Personal Care and Supplies	Cooking Fuel
Health Allowance (OAA-AB)	Water
	Supplies and Replacements

Exception: Certain items mentioned above may not constitute a need in instances where

the individual is in a nursing home, boarding home, etc.

Group II. (Special Considerations)

<i>Continuous Specials</i>	<i>Temporary Specials</i>
Telephone	Medical Appliances
Insurance	Special Examinations
Transportation	Dental
Education	Special Clothing Needs,
Board and Room	etc.
Nursing Care	
Restaurant Meals	
Laundry, etc.	

[Amended October 20, 1958; May 15, 1959; April 25, 1960; January 22, 1963; March 11, 1970]

Types of Services for which Payment May Not Be Made Through the Medical Plan. [Amended April 25, 1960]

No payment will be made for:

1. Hospitalization or any supplies, services or procedures performed in the hospital including surgery, drugs, laboratory, X-rays, etc. Exceptions: Payment will be made (1) for services rendered in the outpatient department of a hospital (when the patient is not hospitalized overnight, including X-rays, laboratory services and drugs, (2) to practitioners, without the necessary equipment, who refer their patients to the hospital for laboratory tests and X-rays on an outpatient basis.

2. Items which may be provided in the assistance plan. [Amended April 25, 1960]

3. Remedial Eye Care. (Provision for such care is made through another program.)

4. Medical or remedial services reasonably available through other publicly supported programs or from a private agency.

5. Medical or remedial care expense which may be met through various types of health insurance.

Recipients are eligible for medical and remedial care furnished in accordance with the department's quality, quantity and cost standards when the required care is not reasonably available to them from other sources without charge.

The quality, quantity and cost standards shall be developed by the department's technical and professional staff with the help and advice of professional committees.

In discharging the duties required by this rule, the state board, with the advice and help of technical and professional advisors, shall develop standards based on the following principles:

1. Free choice by recipient of practitioners or druggists.

2. Protection of the rights and dignity of the patient, including confidential information regarding the patient's illness.

3. Provision for care, within the limitations of the program, of a quality and adequacy consistent with good professional practice, as economically as is compatible with good standards of care and fair compensation to the providers of care.

4. Determination of financial eligibility by the county department of social welfare.

5. Eligibility for public assistance entitles recipients to medical or remedial care provided through this program.

6. An established and continuous working relationship between the departments of social welfare and the county and state committees.

7. Consideration of plans for medical and remedial care as a part of the over-all plan for assistance and service.

8. Co-ordination of medical and remedial services provided through public assistance funds with medical and remedial care reasonably available through other public and private resources.

Prior authorization by the county department is required for all services rendered by practitioners.

Payment for medical and remedial services shall be made directly to the vendor.

The department reserves the right to remove from participation in the program any practitioner or vendor who has violated the department's requirements for such participation.

The amount of any payment made directly to the vendor by the recipient, relatives or from other sources, including General Relief, shall be deducted from the established cost standard for the service provided, to establish the amount of the payment to be made by the department. Exception: This rule is not applicable to (1) supplementation from any source other than a responsible relative to meet the cost of certain services for which no payment is made by the department (oxygen, psychiatric treatment, physical therapy), when such services are prescribed by the recipient's physician and provided in a licensed custodial or nursing home; (2) supplementation from general relief for nursing care provided by a licensed hospital. [Amended December 13, 1960; November 15, 1962]

Additional special needs as have been outlined should be included when specified circumstances are present in a particular case and an explanation provided in the narrative. While the extent of need is determined by an evaluation of the individual's requirement and resources available to meet such requirement, the grant is related to the deficit as a whole and not to a single item of expense. The right of individuals to expend their assistance as they wish is recognized. Any actual or implied control over the use of the grant will cause it to be regarded as restricted. Recipients of public assistance should enjoy the same rights in connection with carrying on their activities and discharging their responsibilities as other members of the community.

239.7 See a, b, c, d, e, f, g, Section 249.11 (Old-age Assistance).

239.8 Removal From County

(a) The county where the recipient and de-

pendent child are living at date of application is financially responsible for the county's share of assistance issued until the recipient and dependent child move into another county and reside there for a period in excess of six months after assistance is approved. Responsibility should be transferred to the new county after six warrants have been written in favor of the payee while residing in such county for six consecutive months.

239.9 Funeral Expense

(a) See a, b, c, d, Section 241.17 (Aid to the Blind). [Filed June 23, 1955]

A RULE RELATING TO RELIEF FOR NEEDEY INDIANS
[Filed December 19, 1961]

252.43 Relief for Indians

The Director of Social Welfare in Tama County has been designated by the State Department of Social Welfare to administer relief for needy Indians residing on the reservation.

A. General Relief. The program of relief for needy Indians provides for the State Department of Social Welfare, upon authorization of the Tama County Director of Social Welfare, to order the State Comptroller to write warrants, in favor of an Indian residing on the reservation for those items designated by the state board. Warrants may also be issued to meet special needs when recommended by the Field Representative and approved, on an individual case basis, by the State Department of Social Welfare.

Eligibility Requirements

1. *Determining Amount of Assistance.* The standards used in the aid to dependent children program shall be used for those items for which provision is made through the program of relief for needy Indians.

2. *Need.* Need exists when an applicant lacks sufficient income and resources to meet established requirements.

3. *Age.* There are no age limitations.

4. *Resources and Income.* See (c), (d), (e), (f), (g) and (h), Section 241.3 (Aid to the Blind).

5. *Support from Relatives.* Responsible relatives shall be interviewed at the time of application and review. Any contribution made by the relative shall be taken into consideration in determining the amount of the grant.

Applications. See (b), (c), (d), (e), (f), (g), Section 249.11 (Old-age Assistance).

Investigations. See (a), Section 249.4 (Old-age Assistance).

Payment. Payment shall be made directly to the vendor by the State Department of Social Welfare for goods or services provided.

Limitations on Expenditures. The State Department shall notify the County Department, each month, of funds available for that month. The County Department of Social Welfare may not issue orders in excess of such amount.

Review. A review of cases receiving assistance on a regular basis shall be made as frequently as the circumstances require but in no instance shall the period of time between reviews be in excess of six months. In cases where temporary assistance is granted in emergencies the situation should be evaluated at any time additional assistance is requested.

quently as the circumstances require but in no instance shall the period of time between reviews be in excess of six months. In cases where temporary assistance is granted in emergencies the situation should be evaluated at any time additional assistance is requested.

A RULE RELATING TO THE PROGRAM FOR AID TO THE DISABLED
[Filed August 12, 1959]

AID TO THE DISABLED
(Chapter 9, Laws of the Fifty-eighth General Assembly)

9.4 Disability

(a) Disability means a permanent total impairment of such severity that the disabled person requires assistance from another person in performing the normal activities of daily living. [Amended February 18, 1960]

(b) The determination of disability is the responsibility of the Medical Section of the State Department of Social Welfare. The physician in the Medical Section is a medical doctor employed on a part-time basis by the State Board. He is assisted by a social worker qualified by training and pertinent experience.

9.4 (2) Public Institution

(a) See 249.6(5) (Old-age Assistance).
[Amended June 8, 1961]

9.4 (4) Income and Resources

See a, b, c, Section 249.8 (Old-age Assistance). See c, d, e, f, g, Section 241.3 (Aid to the Blind).

9.5 Amount of Assistance

(a) Need exists when an applicant lacks sufficient income and resources to meet his established requirements.

(b) The following consumption items, which are considered essential for all individuals, should be included as requirements in all assistance plans:

Group I. (Personal and Household)

<i>Personal Allowances</i>	<i>Household Allowances</i>
Food	Shelter
Clothing	Heating Fuel
Miscellaneous and Recreation	Lights
Personal Care and Supplies	Cooking Fuel
	Water
	Supplies and Replacements

[Amended April 25, 1960 and November 23, 1960]

Exception: Certain items mentioned above may not constitute a need in instances where the individual is in a nursing home, boarding home, or other congregate living arrangement.

Group II. (Special Considerations)

<i>Continuous Specials</i>	<i>Temporary Specials</i>
Telephone	Medical Appliances
Insurance	Special Examinations
Transportation	Special Clothing
Education	Needs, etc.

Board and Room
Nursing Care
Restaurant Meals
Laundry, etc.

[Amended April 25, 1960; November 23, 1960; March 11, 1970]

Types of Service for Which Payment May Not Be Made Through the Medical Plan. See (b), Section 239.5 (Aid to Dependent Children). [Amended November 23, 1960]

9.7 Applications

See a, Section 241.6 (Aid to the Blind).

9.8 Investigation

See a, Section 241.7 (Aid to the Blind).

See a, Section 241.12 (Aid to the Blind).

9.10 Appeals

See a, b, c, d, e, f, g, Section 249.11 (Old-age Assistance).

9.11 Guardian

(a) When an application is filed for a person under guardianship, the Application for Assistance, Form PA-1101-0, shall be signed by the guardian and assistance payments shall be made to such guardian. The original investigation and any subsequent reviews shall include an interview with the guardian.

9.13 Funeral Expense

(a) See (a), Section 249.18 (Old-age Assistance).

(b) **Payment by Relatives or Friends or from Estate of Deceased Recipient—**Burial expenses hereunder may not exceed \$350.00 when paid from the estate of the deceased recipient or when relatives and friends of the deceased provide extraordinary expenses to supplement the usual burial expenses up to \$175.00 paid from the state old-age assistance fund.

Extraordinary expenses hereunder which may be paid by relatives, friends or the decedent's estate shall include:

1. Steel or concrete vault.
2. Oversize casket required because of the excess size or deformity of the body.
3. Transportation of the body for a distance of more than twenty miles from place of death.
4. Cremation of the body at the request of the decedent or relatives.
5. Services of a second funeral director in another community in connection with interment.

However, in computing the total burial expense limitation of \$350.00, such reasonable costs for burial lot, grave opening, clothing, transportation other than of the deceased, clergyman, music and a concrete burial box, when required by the cemetery, at the lowest cost available to meet the minimum requirements, may be paid by relatives and friends, or under arrangements previously paid for by the deceased prior to death, and same shall not be considered as usual or extraordinary expenses as hereinbefore set out.

Relatives and friends may be able to provide usual expenses for burial lot, grave opening and/or clothing in lieu of allowance of such

expenses from the state old-age assistance funds. In such instance, the \$350.00 limitation on burial expenses applies only when the state pays a part of the basic burial expenses up to the amount of \$175.00 as hereinabove set out. Further, the \$350.00 limitation does not apply to such expenses as may have been paid prior to the death of the recipient provided same were disclosed to the State Welfare Department so that they might be properly considered in determining the deceased recipient's eligibility for assistance payments.

In the event any payment up to \$175.00 is allowed from the state assistance fund for usual burial expense, relatives, friends or the estate of the deceased may provide additional usual or extraordinary expense up to a total amount of \$350.00 for burial of the deceased. This limitation includes the total funds expended, both by the state and by relatives, friends or the estate of the deceased and applies when the state has not provided any additional expense for burial lot, grave opening and/or clothing, but has provided any part or all of the usual burial expense.

In the event the deceased recipient may have assigned a life insurance policy or similar death benefit contract to the State Department in order to become or remain eligible for aid to the disabled payments from the state, such amounts payable thereunder up to \$350.00 as may be determined proper under the circumstances, may be released by the said State Department to apply toward the burial expense of such decedent.

CHILD WELFARE SERVICES STANDARDS FOR FOSTER CARE PROGRAM AND FACILITIES

Standards for Nurseries

Nurseries are licensed under the authority given in Chapter 237, 1954 Code of Iowa, in accordance with an opinion rendered by the Attorney General.

Definition

1. The term "Nursery" shall mean and include the facilities of any home, institution or organization, whether known as a day care center, day nursery, co-operative day nursery, co-operative day nursery school or nursery school, which for profit or nonprofit, receives for temporary care, during part or all of the day, six or more children, over two years of age.

Licensing Procedure

2. A license for operating a nursery shall be "Full" or "Provisional." A provisional license for operating a nursery indicates one or more minimum requirements or standards are not fully met. A provisional license shall be issued for only one year on the same unmet requirement.

3. A license for operating a nursery shall designate the type of operation—"Preschool" or "Day Care."

4. A person or corporation applying for a license for operating a nursery must make

application on the forms provided by the State Department of Social Welfare.

5. License application forms for licensing a nursery shall be signed by the board president or chairman of the incorporated nursery or by the executive or operator if there is no governing board.

6. Withdrawal or cancellation of the application for license for operating a nursery shall be reported to the State Department of Social Welfare, within thirty days.

7. A representative of the State Board of Social Welfare shall make a study of the nursery before a license for operating a nursery is granted or denied.

8. The nursery shall discontinue operation immediately when a license for operating a nursery is denied.

9. When a license for operating a nursery is withdrawn or revoked the nursery shall return the license to the State Department of Social Welfare within thirty days.

Organization and Administration

10. Every nursery not incorporated under the statutes of Iowa shall have a written statement of the objects and purposes for which the nursery is established and this statement shall be filed with the State Department of Social Welfare. The plans and practices of operation shall be consistent with the statement. Any change of the plans and practices shall be immediately transmitted to the State Department of Social Welfare in writing.

11. When a nursery is incorporated in the State of Iowa, a copy of said Articles of Incorporation shall be submitted to the State Department of Social Welfare; in the event any amendments to the original articles are filed, a copy of said amendment or amendments shall be transmitted to the State Department of Social Welfare.

12. A nonprofit nursery shall have a governing board. The board or operating body shall formulate rules and policies within the objects and purposes of said nursery, insist the same be followed and assure itself the executive is fulfilling his function.

13. The board or operating body of a nonprofit nursery shall provide for the operation of said nursery with competent staff which meets the minimum requirements established by the State Department of Social Welfare and shall provide for revenue for adequate financing of said nursery.

14. The budget of a nonprofit nursery must be presented to the board or governing authority for approval prior to becoming effective.

15. The nursery shall maintain financial solvency, consisting of either resources and/or predictable income, not totally dependent on current fees, for at least a three months operating budget.

16. The nonprofit nursery shall prepare a monthly statement of receipts and expenditures.

17. Records of all financial transactions of

profit nurseries shall be entered on the books kept by the operator, executive or owner.

18. The treasurer, executive and other persons handling the funds of a nonprofit nursery shall be bonded.

19. An accountant shall annually audit the books of the nonprofit nursery except the nursery operated and maintained by the state in accordance with the Iowa Code.

Personnel (Qualifications and Responsibilities)

20. The basic minimum staff of a nursery shall consist of the following: A mature operator or executive and teacher or child-care staff, dependent upon the number and age range of children served by the nursery.

The basic minimum staff of a nursery shall never be less than two persons to give direct care to children. Two staff members shall be on duty at all times except during the periods when the program is starting and ending each day. Until the group in care numbers six in the mornings, and after it is less than six at least one staff member must be on duty with the children and a second person must be within calling distance. When the second person is not a staff member, the nursery shall have written agreements with a person or persons, defining the arrangement(s).

The nursery's child-care or teaching staff shall be kept in the following ratio to groups of children in care.

- At least one staff member for each group of:
- 6 two-year-olds
- 12 three-year-olds
- 15 four-year-olds
- 18 five-year-olds
- 18 six-year-olds
- 25 seven-year-olds and over seven-year-olds

Combinations of age grouping shall have staff determined on the youngest age group. In addition to the basic staff, one staff member shall be available as needed to give assistance to any group.

Separate maintenance staff shall be provided except when the direct child-care and teaching staff is in excess of the ratio given above.

21. The nursery operator or executive shall be a competent person, mentally and emotionally stable, who has ability to work with children as adjudged from past experience and training.

22. The nursery operator, executive or board shall provide a plan for staff training and development.

23. The nursery operator or executive shall be responsible for the nursery administration and program; for admission and discharge of children and be concerned for the child's development while in said nursery.

24. The nursery's child-care staff and teachers shall have a knowledge of child development and behavior; have the ability to give the children a feeling of security and comfort; and under the supervision of the executive or operator be responsible for the guidance and direct child-care.

25. A nursery licensed as a "School" shall

have at least one teacher who is a high school graduate and has credits from an accredited college or university in the subjects listed below:

a. Four quarter credits or three semester hours in "Approved supervised teaching in preschool groups" (not less than 120 hours), and

b. Six quarter credits or four semester hours in "Family Relations and Community Life," and

c. Nine quarter credits or six semester hours in "Child Development, including child psychology, physical growth, and personality development, from birth to twelve years," and

d. Nine quarter credits or six semester hours in "Nursery school curriculum and procedure (including literature, music, art, and science for children two to five years), selection of equipment and materials".

(One year's teaching experience under the supervision of a teacher who has these qualifications may be substituted for six quarter credits or four semester hours of the requirement given under "d".)

26. The nursery shall have at least one staff member with training and knowledge of child development and nursery management so as to impart his knowledge to the general staff and plan for orientation of new staff members.

27. Every staff member shall be in good physical condition and the same shall be evidenced by a report from a medical examiner, prior to employment, and thereafter at least every third year. A staff member, who develops any symptoms of a communicable disease, at any time, shall be required to have a medical examination.

28. Personnel records for the nursery staff shall be complete including medical reports.

29. No administrative, professional or child-care staff member shall be younger than sixteen or older than seventy years of age.

Plant and Equipment

30. No nursery shall be operated where any condition exists which would be injurious to the moral or physical welfare of a child or children.

31. No nursery shall be operated in a setting or building where the care of the aged, infirm or incapacitated is given on a planned or licensed basis.

32. The premises of the nursery shall be in a sanitary condition acceptable to the State Department of Health.

33. Premises used for outdoor play by the nursery shall be maintained in good condition throughout the year; shall be kept free from litter, rubbish and inflammable material at all times and shall be fenced off when the nursery grounds are located on a busy thoroughfare.

34. Any new building or remodeling plan for a nursery shall be approved, prior to construction, by the State Department of Social Welfare.

35. In any large nursery program the ad-

ministrative offices shall be kept separate from the areas used by the children. Space in each nursery shall be provided for clerical work and for confidential records and other materials which need to be kept on file in the nursery.

36. The nursery shall have sufficient rooms available for the various types of activities and for the care of children by age groups.

37. The nursery shall have napping facilities for each preschool age child if time spent at the nursery is longer than three hours and shall provide a washable cot and bedding for each preschool age child. There shall be at least two feet of space on all sides of the cot except where it touches the wall.

38. The nursery shall have a room which can be used for isolation for any child having or suspected of having a communicable disease.

39. Individual toilet articles, including towels (paper or cloth) and facilities for keeping them shall be provided in the nursery. Sanitary dispensing and disposal units for paper cups and towels shall be provided in the nursery.

Fire Safety

40. The nursery, before a license is issued, must be inspected by the local fire department or the State Fire Marshal. All recommendations for fire safety as determined by the inspection of the nursery and approved by the State Department of Social Welfare must be carried out.

41. A nursery using second story facilities shall provide the building with an approved fire escape. The nursery shall provide fire extinguishers within the building at places recommended by the fire department and the nursery premises shall be kept free from fire hazards and accumulations of combustible materials.

Equipment and Materials

42. The nursery shall provide equipment for the use of the children suited to their needs, size and abilities for both indoor and outdoor activity. The total shall include materials and equipment to encourage muscular activity; social and dramatic play; intellectual growth and creative expression; and shall be of safe construction and materials and easily cleaned. The nursery shall have permanent outdoor play equipment.

Standards of Service

43. The nursery's admission and intake policies shall be defined, formulated and commensurate with the needs of the children and with the purpose of the program.

44. The nursery program shall be appropriate to the defined purpose of the nursery and shall not be a duplication of the elementary public school curriculum.

45. The nursery shall establish definite financial agreements and fee policies for the children served.

46. The nursery shall have and maintain

social, factual and medical data regarding each child and his family.

47. The nursery shall establish definite medical policies with respect to admission and readmission with provision for the following mandatory requirements.

The nursery shall require each child to have a preadmission physical examination and immunizations for smallpox, diphtheria, whooping cough, tetanus and any other immunization the local or state health authority deems necessary. A child without immunizations shall be admitted only when such procedures are started immediately. Booster shots shall follow recommendations as set forth by the Manual of "Approved Procedures and Techniques" of the State Department of Health.

Exemption—Nothing in this rule shall be construed to require medical treatment or immunization for the minor child of any person who is a member of a well-recognized church or religious denomination, and whose religious convictions in accordance with the tenets or principles of his church or religious denomination are against medical treatment for disease.

48. The nursery shall have the parents' written consent for emergency medical care for each child and shall administer no medicine to any child in care without a doctor's direct verbal or written authorization.

49. A daily health inspection shall be given each child upon his arrival at the nursery for the purpose of the early detection of signs of apparent illness, communicable disease or any unusual condition or significant behavior which may adversely affect the child or the group.

50. Any child, becoming acutely ill or injured while in care, shall be isolated from the group until other provision for care is made and he shall have immediate medical care.

51. The nursery shall plan menus so each child will receive all he needs of each of the dietary essentials.

52. Breakfast shall be available at the nursery to children who come in the morning without it and shall be a balanced meal providing at least one-fourth to one-third of the child's total daily nutritive requirements. Children remaining at the nursery for as long as five hours shall be served a full balanced meal providing at least one-third of the child's total daily nutritive requirements.

53. The nursery shall allow at least one-half hour for eating a meal. Mealtime for the preschool age child shall not follow directly a period of extreme activity.

54. The nursery shall provide case work service to the child and to his family when needed.

55. The professional staff of the nursery shall have joint responsibility for planning for the child's discharge from the nursery.

56. In the nursery, a balance must be achieved between the stability of certain necessary routines and flexibility necessary to provide creative play experiences. Adult standards shall not be superimposed and children

in care should be allowed to develop at their own rate. The same basic principles shall apply to all nursery programs and a nursery having both preschool and school age children shall develop and maintain separate programs for each classification.

57. The program for the preschool age group shall present evidence that it is closely related to the optimum development of each child and the activities planned accordingly. It shall daily include: Free, directed activity and vigorous and quiet play in and out of doors with opportunities for each child to develop free expression through work with raw materials and use of traditional materials.

58. The educational program for the nursery "school" shall be dependent upon the qualifications of staff and the program.

Records and Reports

59. The nursery shall keep records and reports on the children in care including:

a. A master file or index book containing identifying family information on all children given care.

b. A card file or index book for children under care.

c. A case folder for every family receiving day care service, containing identifying family information, pertinent information about each child in care and the health record of each child. These case records shall be kept in locked files at the nursery.

60. A good bookkeeping system, including proper fiscal files, shall be maintained by the nursery.

61. The nursery shall make available to the State Department of Social Welfare all reports requested and at the time requested.

LICENSING REQUIREMENTS FOR INSTITUTIONAL CARE

[Filed July 25, 1962]

The following rules and regulations for children's institutions provide for the conduct of those "Children's Boarding Homes" defined in Chapter 237, Code of Iowa, which offer care to six or more children.

1. Organization and Administration

1.01 Profit and nonprofit institutions shall maintain financial solvency which insures adequate care of the children and youth for whom responsibility is assumed and shall have sufficient resources, predictable income, or both, not totally dependent upon current fees, for a three months' operating period.

2. Personnel and Personnel Practices

2.01 Personnel standards shall be in writing, presented to each new employee and shall be consistent with the Iowa labor statutes.

2.02 Only persons between the ages of eighteen and seventy of good moral character, intellectual capacity and sound mental and physical health shall be employed to provide direct child care services.

2.03 The sound health of every staff member shall be evidenced by a physical examina-

tion prior to his employment and every three years thereafter unless necessitated more frequently due to the employee's health.

2.04 A personnel record shall be maintained for each employee setting forth the following information:

- Name and address of employee.
- Social security number of employee.
- Date of birth.
- Date of employment.
- Experience and education.
- References (information from three sources).
- Position in the agency.
- Date of discharge or resignation.
- Records of physical examinations as required.
- Hours of work.

2.05 Each institution shall establish written ratios of child care staff to the children under care in accordance with the needs of the children which shall be approved by the state board of social welfare.

There shall be at least one staff person on duty in each building who is readily accessible to the children at all times. For girls over the age of six years, this person shall be a woman. A second staff person shall be on call and immediately available for duty in the event of an emergency.

3. Buildings, Grounds and Equipment

3.01 The sanitary and health measures of the department of health shall be met.

3.02 Each institution shall secure an annual fire inspection which shall meet the approval of the state fire marshal and shall meet the recommendations thereof.

3.03 Local building and zoning ordinances shall be met.

4. Services

4.01 The institution shall have written policies governing the type of care offered, the requirements for admission, and the provisions made for discharge.

4.02 The institution shall have written authorization prior to admission to provide care for each child, including authorization for medical and surgical care and hospitalization in an emergency. These authorizations shall be signed by parent or guardian and shall be filed in the child's record.

4.03 A medical and dental health program shall be developed and carried out for each child which shall include:

- a. A physical examination within one week prior to admission.
- b. A medical and dental diagnostic evaluation.
- c. Prescribed corrective or rehabilitative treatment while in the care of the institution.

Exception: In case of an emergency a child may be admitted without a preliminary physical examination, provided that such an examination be given within three days after admission.

4.04 A child care plan shall be developed and recorded for each child which shall incorporate, in accordance with his needs, consultations with child care, social work, educational, medical, psychiatric and psychological personnel. Each child's progress shall be recorded at least quarterly and the child care plan re-evaluated annually.

4.05 Casework services shall be provided for each child as an integral part of the program. These services shall be provided by or supervised by a social worker with one year of graduate training in an accredited school of social work, plus one year of casework experience under a qualified social work supervisor, or two years of such graduate training.

4.06 Institutions caring for mentally retarded children shall provide the services of a clinical psychologist as an integral part of the services for each child. The psychologist providing this service shall meet the requirements of membership in the American Psychological Association.

4.07 There shall be a consulting physician who shall develop and supervise the medical program for the institution and be responsible for the medical care of each child.

When the institution offers a program of treatment for emotionally disturbed children, the medical program for such children shall include the consultation of a psychiatrist.

4.08 Nursing care shall be provided as directed by the designated consulting physician for the institution.

4.09 An educational program shall be provided for each child in accordance with his abilities and needs. The educational and teaching standards established by the state department of public instruction shall be met when an educational program is provided within an institution.

4.10 The food provided for the children shall conform to the dietary recommendations for the state department of health.

4.11 The institution shall have written policies governing religious training.

4.12 The institution shall have written policies approved by the state board of social welfare governing the discipline of the children in care.

5. Records and Reports

5.01 An individual case record shall be maintained for each child and this shall include the following:

- a. Identifying information about the child and his family:
 - (1) His full name, birthplace and date.
 - (2) Parents' full names, including mother's maiden name.
 - (3) Parents' address.
 - (4) Religion of parent and child, if not the same.
- b. Statement indicating who has legal custody, if other than parent, or court order.

c. Placement agreements and medical authorizations signed by parent or legal guardian. (Item 4.02)

d. A record of all medical and dental examinations and treatment. (Item 4.03)

e. Psychological examination and recommendations when required under item 4.06.

f. Summarized reports, at least quarterly, of child's progress and development while under care. (Item 4.04)

g. Reports of child care staff.

STANDARDS FOR APPROVAL OF COUNTY INSTITUTIONS TO WHICH NEGLECTED, DEPENDENT AND DELINQUENT CHILDREN MAY BE LEGALLY COMMITTED

[Filed December 19, 1962]

Buildings, Grounds and Equipment

1.01 Sanitation and health measures as determined and specified in the "Sanitation Handbook for Institutions for Children" compiled by the department of health and issued by the department of social welfare are met.

1.02 Each institution secures an annual fire inspection approved by the state fire marshal and meets the recommendations thereof.

1.03 Local building, zoning, sanitation and fire safety ordinances are met.

Personnel

2.01 The county boards of supervisors or the court, or the two acting jointly, employ a superintendent and a matron, together with such additional staff as they determine necessary for the sound and effective operation of the home.

2.02 Persons between the ages of eighteen and seventy years, of unquestionable moral character, good intellectual capacity, sound physical and mental health, and an ability to work constructively with children and youth are employed.

2.03 There is at least one staff person on duty in each building at all times who is readily accessible to the children and youth; such staff person is a woman when the care of girls over six years of age is involved; and at least one other staff person is on call and readily available for duty in case of an emergency.

Program

3.01 The institution has established a program of service and care which is focused on the best interests of the child, is nonpunitive in nature and focused not only on the immediate needs of the child but also directed toward long-term goals.

3.02 The institution has developed a statement of both admission and discharge policy which clearly designates those children eligible for admission, the circumstances under which admission may be effected and the manner in which discharge takes place.

3.03 Children and youth held in secure detention are, insofar as is practical, kept

separate and apart from those given shelter care and are segregated by sex.

3.04 A child care plan is developed by the institution for each child which incorporates, in accordance with his needs, consultation with child care, probation services, social work, educational, medical, psychiatric and psychological personnel.

3.05 The institution has a consulting physician whose duties include the development and supervision of a medical program for the institution and be responsible for the medical care of each child.

3.06 Nursing service is available as directed by the consulting physician.

3.07 The institution has a planned program of daily activity which provides for each child, in accordance with his individual needs, both recreation and education. Children and youth held in detention have freedom of movement and exercise at all times and at no time continuously confined in a locked room or cell for more than twenty-four hours.

3.08 When an educational program is established within the institution it meets the educational and teaching standards established by the state department of public instruction. [Amended December 20, 1962]

3.09 Food provided for the children conforms to the dietary recommendations of the state department of health.

Reports

4.01 The institution makes an annual report as provided in Section 232.38, Code of Iowa.

STANDARDS FOR CHILDREN'S BOARDING HOMES

Authority

Since 1925, the laws of Iowa have recognized the responsibility of the state for safeguarding the interests of children cared for away from their own homes. At that time, the first children's boarding home law was passed, requiring certain homes caring for children to be inspected and licensed by the bureau of child welfare of the board of control. The Child Welfare Act of 1937 (chapter 235 of the Code of Iowa) transferred this duty to the Department of Social Welfare (section 235.3). In order to insure minimum standards of child care in boarding homes, the state Board of Social Welfare is directed by law to formulate rules and regulations for the conduct of such homes, with which all boarding homes must comply.

General Provisions

1. DEFINITION BY AGE AND NUMBER OF CHILDREN: The law limits the necessity of securing a license to homes boarding three or more children under fourteen years of age at any one time. Agencies should, however, safeguard children entrusted to their care by applying the same minimum standards to homes caring for less than three children and to those over fourteen years of age. It is not necessary for

three children to be in the home at all times to keep the license active. A home equipped for and prepared to give care to three or more children can retain a license, even though the active population is less.

2. TUITION: When a boarding home is licensed, the school district is entitled to receive tuition from the state department of public instruction for any children attending school whose parents or guardians do not reside in the same school district as the boarding parents, and who are public charges (section 238.23 of the Code of Iowa). Tuition privileges do not stop when the child becomes fourteen years old. The tuition law says "any child of school age."

3. CERTIFICATE OF APPROVAL: The division of child welfare will issue upon request of the supervising agency, and after a satisfactory inspection, a Certificate of Approval to boarding homes which can provide adequately for only one or two children. This certificate is a token of recognition of the fact that the home meets all the standards for a licensed home, but it does not afford the privilege of school tuition.

4. DAY CARE HOMES: Private homes, caring for children during the daytime only (chiefly for employed mothers during the war emergency) must comply in general with the same standards as full-time care homes, and must be licensed to care for more than two children at a time.

Licensing

1. RELATIONSHIP OF THE DIVISION OF CHILD WELFARE TO CHILDREN'S BOARDING HOMES: The division of child welfare of the state Department of Social Welfare has the sole power to issue or revoke a license for the conduct of a children's boarding home.

VISITATION AND INSPECTION: The division of child welfare, through its officials or authorized agents, may visit and inspect a children's boarding home at any time, but it is required to visit each home every six months.

Applications to operate a boarding home, signed by the foster parents, shall be submitted to the division of child welfare of the state Department of Social Welfare, through the supervising agency.

All permanent records pertaining to children's boarding homes shall be kept in the files of the division of child welfare, which records shall include the license, foster home evaluations, reports of sanitary inspection, master file card, and population reports.

2. DURATION OF LICENSE: A license for the conduct of a children's boarding home is effective only for the period of one year from the date of issue. If the boarding family should move to another location, the new residence must meet the housing and sanitation standards of the state department of health in order to keep the license in force. Licenses will be renewed only upon a re-evaluation of the boarding home. Withdrawal or cancellation of a boarding home application must be re-

ported to the division of child welfare of the state Department of Social Welfare.

3. LIMITATION IN NUMBER OF CHILDREN: A license shall not be issued for more than four children, except by special permission of the director of the division of child welfare. This number shall include boarding children over fourteen years of age. There should be no more than two children under two nor a total of more than six children under fourteen years of age, boarding and own, in the boarding home at one time. An exception may be made to this standard if necessary to keep together a large family of children needing boarding care, or for children who remain in the boarding home for short periods only. Institutions caring for larger numbers of children will also be licensed under the boarding home statutes.

The number of children which may be cared for at any one time in the home of the applicant is specified in the license and may not be exceeded without permission of the division of child welfare of the state Department of Social Welfare.

4. SUPERVISION: A license shall not be issued to a boarding home applicant independent of a supervising agency which must be approved by the division of child welfare, state Department of Social Welfare. Boarding homes should not accept children for care from more than one agency at the same time.

5. COMPULSORY HEALTH REPORTS: A report of the sanitary and health conditions of the boarding home premises must be submitted each year before a license can be issued. Such inspection shall be as directed by the state department of health.

The report of the sanitary conditions of the boarding home premises applies only to the residence occupied at the time of application. Any change of address shall require a new health or sanitary inspection.

6. REVOCATION OF LICENSE: Intentional or persistent violation of any one of the rules and regulations for the conduct of children's boarding homes shall be cause to revoke a boarding home license.

7. POSTING OF LICENSE: The statute requires the posting of the license in a conspicuous place in the licensed home (section 237.10 of the Code of Iowa). How this will be done may be left to the discretion of the individual boarding mother.

Physical Standards

1. LOCATION OF BOARDING HOME: The boarding home must be in a reputable neighborhood, and one that is conducive to the health and safety of the child.

The boarding home must be accessible for church and school attendance, and for medical and supervisory service.

2. BUILDING AND EQUIPMENT:

a. Sanitation: The boarding home shall conform in fire protection, building construction, sanitation, and maintenance to the ordinances

of the city in which it is located and to the laws of the state. Each home shall conform in the above and in the following manners to the standards and regulations of the state department of health: Refrigeration of food; the size, ventilation and lighting of sleeping rooms; the screening of all openings to the house; heating facilities; the adequacy of indoor and outdoor play space for children; the water supply; sewage disposal; toilet facilities; and garbage disposal; and to any other question relating to health and sanitation and safety. This will be determined for each home at the time the health inspection is made.

Standards for cleanliness throughout the premises and the housekeeping shall be reasonably good and of the standard set by the supervising agency. However, the emphasis should be on homemaking rather than on housekeeping.

b. *Health Requirements:* Isolation quarters shall be provided for children with contagious diseases.

Separate beds shall be provided for each child and equipped with comfortable springs, clean mattress and bedding. Children of the same family and sex shall constitute the only exception to this standard.

Usually not more than four children should sleep in one room even though the room has sufficient cubic air space to comply with the housing law.

No bed for a boarding child shall be placed in an attic, basement, stairway, storeroom or unfinished room. It is not advisable to provide sleeping quarters for boarding children in rooms used for general family purposes, i.e., kitchen, dining room, living room.

Personal Qualifications of the Boarding Home

1. **CHARACTER:** All members of the household must be of good character, habits, and reputation.

2. **HEALTH:** All members of the household must be in good health with no disqualifying physical or mental handicaps. All members of the foster family shall be free from communicable disease and history of present and recurring mental disease. Acceptable evidence of this fact shall be required.

3. **FINANCIAL STATUS:** The financial status of the foster family should be such that the security to the child will not be jeopardized.

4. **OCCUPATIONAL LIMITATIONS:** The foster mother shall not regularly be employed outside her home. No boarding home shall conduct a rooming or boarding house, or carry on any commercial work which is or will be a detriment to the welfare of the child.

Homes caring for convalescent or maternity patients may not be licensed as boarding homes for children, and boarding homes may not accept convalescent or maternity patients.

Homes used for the care of aged persons are not to be used for the care of children except where the aged persons, by virtue of

their relationship or long standing friendship, are considered a part of the family group.

5. **FAMILY RELATIONSHIPS:** Home life should be harmonious enough to give the children the emotional stability they need. All members of the family must be willing to accept the boarding child into the home as a member of the family group. They should be able to give the child experience in normal family life.

6. **RELIGION:** So far as it is practicable, boarding parents should be of the same religious belief as the parents of the child.

Care of the Child

1. **MEDICAL CARE:** A thorough physical examination of each child shall be provided by a competent physician upon admission to the boarding home. Foster parents should insist upon being assured of the physical fitness of the child before accepting him as a member of the household.

Diagnosis and treatment in case of illness or accident shall be given by a competent physician. No "home remedies" shall be regularly administered by foster parents without the knowledge and approval of a physician and the supervising agency.

To provide for emergency illness and accidents, every boarding home shall provide itself with first aid equipment and shall receive instructions for its use by a physician or a registered nurse.

A report of the child's illness, injury and temporary indisposition shall be made as soon as possible to the supervising agency, or to the child's parents if the child was placed directly by them in the foster home.

2. **SOCIAL AND HYGIENIC CARE:** Management of the foster home must be conducive to regularity in habits of sleeping and eating and the care of the body.

The standards of cleanliness and personal hygiene used in the care of the child, taught to him, and maintained by the foster family, shall be in conformity with good health practices and ordinary social acceptability.

A nutritious and adequate dietary shall be established. A formula for feeding infants shall be prescribed by a physician.

Children over six years of age, and preferably not over four years, shall not sleep in the same room with children of the opposite sex.

No child over three, and preferably not over one year of age, shall regularly sleep in a room with the boarding parents.

Individual toilet articles such as combs, toothbrushes, towels and wash cloths shall be provided. Adequate space shall be set aside for each child's clothing and personal possessions.

The clothing of the child shall be clean and neat and of such quality as not to distinguish it from other children in the community.

3. **STATUS OF CHILD IN THE HOME:** The child shall be treated as a member of the foster

family during the period of his care, sharing the privileges and duties of the household according to his age and capacity, and receiving care and training according to his special abilities or limitations.

4. **SCHOOL AND CHURCH ATTENDANCE:** Children of suitable age shall attend regularly church services and religious schools of their own religious faith insofar as is reasonable and possible. Any deviation from this rule shall be discussed with the supervising agency. Children shall attend public or parochial schools regularly as provided by law except during periods of illness or for other adequate reasons approved by the supervising agency.

5. **RELATIONSHIP TO SUPERVISING AGENCY:** Foster parents shall consult with the supervising agency at all times with regard to care and training of the foster child and on plans for him when it involves more than the day-by-day routine. Foster parents' relationship with the child's own family shall not include plans for the foster child without the knowledge of the supervising agency.

Foster parents must secure permission from the supervising agency before taking or allowing the child to go on vacation trips, visits to relatives, etc.

A boarding child must be left in charge of a competent adult person, who has been approved by the supervising agency, during the absence of the foster parents.

Exception is made to these procedures in the case of parents who have their children cared for in boarding homes temporarily and retain full legal control of them, in which case parental consent is necessary.

Records and Reports

1. **ADMISSION AND DISCHARGE:** The foster parents shall keep a permanent register of all children accepted for care. The register shall have recorded in it, the child's full name, the name and address of the parents or guardian, the name of the supervising agency, date of admission, date of discharge, and the name of the agency or persons to whom the child was discharged.

2. **MONTHLY REPORTS:** Monthly reports of the number of children in each boarding home shall be submitted by the supervising agency to the division of child welfare of the state Department of Social Welfare on forms supplied by the division of child welfare.

The licensed child-placing agencies will use Forms CW-2702 and CW-2703.

FEDERAL FUNDS IN THE PAYMENT OF FOSTER CARE

[Filed April 22, 1959]

Use of Federal Funds in the Payment of Foster Care

Foster care payment is defined as foster care service for which payment may be made by the Department from federal funds.

The reimbursement from federal funds for foster care payment is available to a county

department of social welfare for a child or youth under the age of twenty-one receiving services and residing in an approved foster family home under public or private agency supervision, or for a child who is living in an approved care facility under voluntary or public support (excluding state institutions); and is in need of financial support because one or more of the following conditions has deprived him of parental support:

1. The death, physical or mental incapacity, or continued absence from the home of one or both parents.

2. The abandonment of the child by his parent, guardian or custodian.

3. The neglect or refusal to provide proper subsistence, education, medical or surgical care, or other necessary care for the child's health, morals or well-being, providing a juvenile court has assumed temporary responsibility.

4. Foster care service has been voluntarily requested by his parent, guardian, or custodian but without the ability of the person responsible for him to pay all or a portion of the cost of foster care.

An approved foster family home or an approved child care facility is one which holds either a "Certificate of License" or a "Certificate of Approval" issued by the state board of social welfare.

Each county department of social welfare is responsible for making available service and payment for all types of foster care when needed. Foster care services are a basic part of the county child welfare program.

County departments are responsible for paying their share of the cost of foster care for children having settlement within their borders, in accordance with the provisions of chapter 252, Code of Iowa. When a child's settlement cannot be determined or when he has no settlement in this state, the county department giving service would be reimbursed from federal funds for the full cost of such care.

Reimbursement to county departments will be made from federal funds on a ratio determined by the relationship between the amount of federal funds budgeted by the state board of social welfare, less the funds used for children or youth without legal settlement in an Iowa county, and the total cost submitted by all counties active in the program for a given month.

The plan made for foster care for a child shall be approved by an authorized representative of the county board of social welfare and shall be subject to review and acceptance by the state department of social welfare.

Reimbursement from federal funds shall be made for the following costs of foster care:

1. For basic foster care in a foster family home under public or private agency supervision and for such care in an agency or in an institution.

2. An allowance beyond the basic rate for special care may be made within the limits established by the state board.

3. Clothing as needed and approved by the county department.

4. Medical care and drugs as needed and approved by the county department.

5. Transportation as approved for special purposes by the county department.

As far as practicable, the child's parents shall carry as much of the cost of foster care as they are financially able to bear without jeopardizing their personal and family security.

Reports shall be received by county departments at not less than six-month intervals from all private agencies or other public facilities providing foster care services, indicating the progress of the child or youth in such care.

County departments shall maintain the necessary financial records as developed by the state department in its procedures covering its activities in relation to foster care payment. Such records shall be made available for audit and shall be subject to review by the employees of the State Department.

County departments shall certify each month the expenditures that have been made from county funds as foster care payments on the forms provided by the State Department.

TITLE I

MEDICAL ASSISTANCE

CHAPTER 1

CONDITIONS OF ELIGIBILITY

1.1(223) Persons covered.

1.1(1) *Money payment recipients.* Medical assistance will be available to all recipients of old-age assistance, aid to dependent children, aid to the blind and aid to the disabled and their dependent relatives whose needs are included in the assistance grant.

1.1(2) *Medical only recipients.* Medical assistance will be available to those individuals and families who are not receiving assistance under one of the money payment public assistance categories as follows:

a. Individuals or families who would be eligible for one of the money payment public assistance programs, except for an eligibility requirement in effect in the applicable money payment program which is prohibited by federal law and regulations in a medical assistance program.

b. Individuals receiving care in skilled nursing homes who would be eligible for a grant of assistance based on the department's standards, if they were receiving care in a licensed noncertified nursing home.

1.2(223) *Medical resources.* Medical resources include health and accident insurance, eligibility for care through Veterans Adminis-

tration, Crippled Childrens Program, Title XVIII of the Social Security Act (Medicare) and other resources for meeting the cost of medical care which may be available to the recipient. Such resources must be used when reasonably available. Payment will be approved only for those services or that part of the cost of a given service for which no medical resources exist.

CHAPTER 2

APPLICATION AND INVESTIGATION

2.1(223) *Place of filing.* Application should be filed in the county department of social welfare in the county where the applicant resides. However, if medical care is required by the applicant while visiting in another county, application may be made in that county. The latter county will complete the forms used in the application process and forward them to the county of residence which will complete the determination of eligibility.

2.2(223) *Method of filing.* Application may be made by the person himself, or by someone acting responsibly in his behalf. A person filing an application in behalf of the applicant should be a relative, friend, or other person interested in the applicant's welfare and familiar with his affairs.

2.3(223) *Investigation.* Applications will be investigated by the county department of social welfare and a decision rendered regarding eligibility within 30 days of the date of application.

2.4(223) *Notification of decision.* The applicant will be notified in writing of the decision of the county department of social welfare regarding his eligibility for medical assistance. If he has been determined to be ineligible an explanation of the reason will be provided.

2.5(223) *Date of approval of medical assistance.* The effective date of approval of medical assistance will be the first day of the month preceding the month in which application is made providing the applicant was eligible on that date. If the applicant was not eligible during the month preceding application the effective date of approval will be the date on which eligibility was attained. No payment will be made for medical care received prior to the effective date of approval.

2.6(223) *Certification for services.* The state department of social services shall issue an appropriate medical assistance identification card to an individual determined eligible for the benefits provided under the medical assistance program.

2.7(223) *Reinvestigation.* Reinvestigation will be made as often as circumstances indicate but in no instance shall the period of time between reinvestigations exceed 12 months.

CHAPTER 3

CONDITIONS OF PARTICIPATION
FOR PROVIDERS OF MEDICAL AND
REMEDIAL CARE

3.1(223) Physicians. All physicians (doctors of medicine and osteopathy) licensed to practice in the state of Iowa are eligible to participate in the program. Physicians in other states are also eligible if duly licensed to practice in that state.

3.2(223) Retail pharmacies. Pharmacies are eligible to participate providing they are licensed as such in the state of Iowa or duly licensed in other states.

3.3(223) Hospitals. All hospitals licensed in the state of Iowa and certified as eligible to participate in Part A of the Medicare program (Title XVIII of the Social Security Act) are eligible to participate in the medical assistance program. Hospitals in other states are also eligible if duly licensed and certified for Medicare participation in that state.

3.4(223) Dentists. All dentists licensed to practice in the state of Iowa are eligible to participate in the program. Dentists in other states are also eligible if duly licensed to practice in that state. NOTE: DENTAL LABORATORIES—Payment will not be made to a dental laboratory.

3.5(223) Podiatrists. All podiatrists licensed to practice in the state of Iowa are eligible to participate in the program. Podiatrists in other states are also eligible if duly licensed to practice in that state.

3.6(223) Optometrists. All optometrists licensed to practice in the state of Iowa are eligible to participate in the program. Optometrists in other states are also eligible if duly licensed to practice in that state.

3.7(223) Opticians. All opticians in the state of Iowa are eligible to participate in the program. Opticians in other states are also eligible to participate. NOTE: Opticians in states having licensing requirements for this professional group must be duly licensed in that state.

3.8(223) Chiropractors. All chiropractors licensed to practice in the state of Iowa are eligible to participate. Chiropractors in other states are also eligible if duly licensed in that state.

3.9(223) Home health agencies. Home health agencies are eligible to participate providing they are certified to participate in the Medicare program. (Title XVIII of the Social Security Act)

3.10(223) Medical equipment and appliances, prosthetic devices and sickroom supplies. All dealers in medical equipment and appliances, prosthetic devices and sickroom supplies in Iowa or in other states are eligible to participate in the program.

3.11(223) Ambulance service. Providers of ambulance service are eligible to participate providing they meet the eligibility requirements for participation in the Medicare program. (Title XVIII of the Social Security Act)

3.12(223) Skilled nursing homes. Nursing homes and hospitals or distinct parts thereof currently licensed as such by the Iowa state department of health are eligible to participate in the program providing these facilities meet all of the conditions for participation as extended care facilities in the Medicare program. (Title XVIII of the Social Security Act) In addition to these requirements such facilities must also meet the requirements of the 1967 Life Safety Code of the National Fire Protection Association.

CHAPTER 4

AMOUNT, DURATION AND SCOPE
OF MEDICAL AND REMEDIAL
SERVICES

4.1(223) Physicians services. Payment will be approved for all medically necessary services and supplies provided by the physician including services rendered in the physician's office or clinic, the home, in a hospital, nursing home or elsewhere.

Exceptions—Drugs dispensed by physician. There is no provision for payment for drugs dispensed by a physician unless it is established that there is no licensed retail pharmacy in the community in which the physician maintains his office.

4.2(223) Retail pharmacies. Payment will be approved for the following when ordered by a legally qualified practitioner (physician, dentist or podiatrist):

1. Legend drugs and devices requiring a prescription by law.
2. Insulin.
3. Medical and sickroom supplies when ordered by the physician for a specific rather than an incidental use.

4.3(223) Hospitals. Payment will be approved for not more than ten days of inpatient hospital care per admission. There are no limitations on the amount of outpatient care for which payment will be made so long as such care is medically necessary. If the recipient is eligible for inpatient or outpatient hospital care through the Medicare program payment will be made for deductibles and coinsurance applicable in that program. Payment will be approved for ward or other multiple bed accommodations. No payment will be approved for a private room.

4.4(223) Dentists. Payment will be approved for services and supplies within the scope of a schedule of dental procedures furnished each dentist participating in the program.

4.5(223) Podiatrists. Payment will be approved only for certain podiatric services. Each podiatrist participating in the program is furnished with a list of podiatric services for which payment will be approved.

4.6(223) Optometrists. Payment will be approved only for certain optometric services and supplies. Each optometrist participating in the program is furnished with a list of services and supplies for which payment will be approved.

4.7(223) Opticians. Payment will be made only for certain services and supplies provided by opticians. Each optician participating in the program is furnished a list of services and supplies for which payment will be approved.

4.8(223) Chiropractors. Payment will be made only for certain chiropractic services. Each chiropractor participating in the program is furnished a list of chiropractic services for which payment will be approved.

4.9(223) Home health agencies. Payment will be approved for care in the same amount and subject to the same conditions effective in the Medicare program. (Title XVIII of the Social Security Act)

4.10(223) Medical equipment and appliances, prosthetic devices and sickroom supply dealers. Payment will be made for all medical equipment and appliances, prosthetic devices and sickroom supplies required by the recipient because of his condition. The written prescription of the physician is necessary in all cases. If the item required by the recipient is costly and will be needed only a brief period consideration shall be given to rental rather than purchase of the item.

4.11(223) Ambulance service. Payment will be approved for ambulance service if it is required by the recipient's condition and the recipient is transported to the nearest hospital with appropriate facilities or to one in the same locality, from one hospital to another, to the patient's home or to a skilled nursing home. Payment for ambulance service to the nearest hospital for outpatient service will be approved only for emergency treatment. Ambulance service must be medically necessary and not merely for the convenience of the patient.

4.12(223) Skilled nursing homes. Payment will be approved for care in skilled nursing homes providing skilled nursing care is medically necessitated by the recipient's condition. The definition of "skilled nursing care" is identical to that in effect for extended care beneficiaries in the Medicare program. There are no limitations on the amount of care for which payment will be approved so long as skilled nursing care as defined above is medically necessary. Payment will be approved for multiple bed or ward accommodations. No payment will be approved for a private room.

CHAPTER 5

OTHER POLICIES RELATING TO PROVIDERS OF MEDICAL AND REMEDIAL CARE

5.1(223) Principles governing reimbursement of providers of medical and remedial care. Payment for services of providers of care participating in the medical assistance program will be made on the basis of "reasonable cost" for institutional providers (hospitals and skilled nursing homes). The determination of reasonable cost for institutional providers will be made utilizing the methods and criteria in effect for these providers in the Medicare program. (Title XVIII of the Social Security Act)

The department with the advice of representatives of the various professional groups participating in the program has developed schedules of maximum allowances for use in determining payment to noninstitutional providers of care. Providers of care must accept reimbursement based upon reasonable charges as determined by the department making no additional charges for the service.

5.2(223) Disciplinary action against provider of care. The department reserves the right to remove from participation in the medical assistance program any practitioner or provider of care who has violated the department's requirements for participation. Although not limited to the following practices, the following are illustrative practices which would be considered just cause for removal from participation of a provider of remedial care and services.

5.2(1) Billing for services or supplies not provided or for services and supplies different from those actually provided.

5.2(2) Provision of services or supplies in an amount in excess of that medically necessary for the proper treatment of the patient.

5.2(3) Persistent refusal to comply with the department's rules and regulations governing participation in the program.

5.2(4) Unprofessional, unethical or other questionable practices relating to care and treatment of recipients.

Any overpayments made to providers of service shall be recovered by the department.

5.3(223) Appeal by provider of care. Any provider of care who is dissatisfied with a decision rendered by the carrier with reference to reimbursement for services provided or the medical necessity of such service may file an appeal with the department of social services. The appeal which must be submitted in writing and state the complaint of the provider of care shall be filed with the department of social services. On receipt of the appeal a hearing will be arranged before the hearing officer of the department of social services. At the time of the hearing the provider of care may present such evidence as he de-

sires. Following the hearing a decision will be rendered by the commissioner of the department of social services and such decision shall be final.

CHAPTER 6

PROCEDURE AND METHOD OF PAYMENT

6.1(223) The carrier function in medical assistance.

6.1(1) General administrative responsibilities of carrier. The carrier designated by the department will perform the following primary functions:

a. Receive, process and pay claims submitted by providers of medical and remedial care participating in the program.

b. Make available instructional materials and billing forms to providers participating in the program.

c. Provide reports, statistical and accounting information as required by the department.

d. Participate with staff of the department in analysis and evaluation of policies and procedures.

e. In co-operation with the department develop and carry out a continuous program of cost and utilization review which is applicable to all groups of providers participating in the program. The purpose of cost and utilization review is to assure that only required medical and health services are being received by recipients of medical assistance and that the cost of such services is not in excess of that charged the general public.

6.1(2) Method of selection of carrier. The department will receive sealed bids from prospective carriers for the medical assistance program. Basis of competitive bidding will be a per claim rate which would be applicable to all claims processed by the carrier under the program. A certified check payable to the Iowa department of social services in the amount of \$5,000.00 shall be filed with each proposal. This check may be cashed and the proceeds retained by the department as liquidated damages if the bidder fails to execute a contract and file security as required by the specifications for the faithful performance thereof. Proposals containing any reservations not provided for in the specifications may be rejected and the department reserves the right to waive technicalities and to reject any or all bids.

6.1(3) Reimbursement of carrier for performance of contract. All allowable costs other than amounts paid providers of medical and remedial care and services shall be referred to as administrative costs.

a. Rate per claim. Administrative costs other than those not associated with the processing of claims as set forth below shall be based on a fixed rate per claim handled. Between July 1 and September 30 of each year a complete administrative cost analysis will be submitted to the department by the carrier.

If the cost analysis indicates that the rate per claim handled is in excess of the cost of administration the carrier will refund to the department the overpayment and adjust the per claim charge as of October 1. If the cost analysis indicates an administrative cost in excess of the claim rate the carrier shall submit an additional billing to the department but in no event shall the additional billing exceed 10 percent of the immediately preceding claim rate.

b. Costs not associated with processing of claims. Administrative costs of the carrier which are not included in the claim rate and which are approved by the department for reimbursement may be billed as separate items. The following costs may be billed:

(1) Printing of informational materials and billing forms.

(2) Initial and subsequent mailings of billing forms and instructions to providers of care.

(3) Establishment of office routine but not to include materials, supplies or any office or processing equipment.

(4) Any special studies, reports or projects requested by the department which are not specified in the contract.

(5) Costs of utilization review.

6.2(223) Submission of claims. Providers of medical and remedial care participating in the program will submit claims for services rendered to the carrier on a monthly basis. Following audit of the claim the carrier will make payment to the provider of care.

6.3(223) Amounts paid provider from other sources. The amount of any payment made directly to the provider of care by the recipient, relatives, or any source shall be deducted from the established cost standard for the service provided to establish the amount of payment to be made by the carrier.

6.4(223) Time limit for submission of claims. Providers of medical and remedial care should submit claims to the carrier on or prior to the fifth day of the month following the month in which the service was provided. Payment will not be made on any claim where the amount of time that has elapsed between the date the service was rendered and the date the claim is received by the carrier exceeds one hundred eighty days.

[Filed March 11, 1970]

TITLES II TO XI
Reserved for future use

TITLE XII CHILD-PLACING AGENCIES

CHAPTER 150 LICENSING

150.1(238) Issuance and renewal. The state board of social welfare will issue or renew a license on an annual basis, without cost, for any child-placing agency which meets the fol-

lowing minimum standards applicable to all child-placing agencies as defined by chapter 238 of the Code.

150.1(1) Applications. An organization or corporation applying for a license must use forms provided by the state board of social welfare. The application signed by the operator or the appropriate officer shall be submitted to the state board of social welfare. It shall indicate the type of facility for which application is made.

a. Withdrawal or cancellation of the application shall be reported to the state board of social welfare within thirty days.

b. Each application shall be evaluated by the state board of social welfare.

c. Reports shall be submitted as requested by the state board of social welfare.

150.2(238) Provisional license. If all required standards are not fully met, but plans are under way to correct the defect, a provisional license for a period of one year may be issued at the discretion of the state board of social welfare. This can be renewed only on special review of reasons for delay in removing the deficiency and its possible effect on the children in care.

CHAPTER 151

ORGANIZATION AND ADMINISTRATION

151.1(238) Incorporation. The agency shall define its purpose and functions broadly in its articles of incorporation or if unincorporated, in written constitution and bylaws. The articles of incorporation or if unincorporated, written constitution and bylaws shall be submitted to the state board of social welfare.

151.2(238) Board. The agency shall have a governing board which together with the executive shall be responsible for making agency policy and for financing and general management of the agency.

151.2(1) Membership. The agency shall provide for continuity of board membership.

151.2(2) Meetings. The board shall meet regularly for the purpose of insuring the proper operation of the agency according to its defined purpose.

151.2(3) Minutes. The minutes of each meeting of the board shall be kept and made a part of the permanent records of the agency.

151.2(4) Annual report. The governing board shall require the executive to submit to them a written annual report, a copy of which shall also be sent to the state board of social welfare.

151.3(238) Financing and accounting. The agency shall have a sound plan of financing which gives assurance of sufficient funds to carry it through its first year of operation in order to carry out its defined purposes and

provide proper care for children. Thereafter, it shall have sufficient resources, predictable income, or both, not totally dependent on fees, for a three-month operating period.

151.3(1) Audit. A certified public accountant shall conduct an audit of all financial accounts at least once a year and his report made a part of agency records. A financial record of all receipts, disbursements, assets and liabilities shall be maintained.

CHAPTER 152

PERSONNEL AND PERSONNEL PRACTICES

152.1(238) Staff. Staff members shall be persons of sound character, emotional stability and of sufficient ability and education to carry out adequately the duties assigned to them by the agency.

152.1(1) Social work staff. Each agency shall have sufficient trained social work staff to provide satisfactory service.

152.1(2) Executive. The executive shall be a person of broad knowledge and competent to administer the agency according to its stated objectives and have the qualifications of a case-work supervisor if none is employed. He shall have proven executive ability and an understanding of children and their needs as well as vision and leadership.

152.1(3) Casework supervisor. The casework supervisor, if employed, shall have had one year of experience in casework practice and shall have successfully completed two years of training in an accredited school of social work or have been accepted as a member of Academy of Certified Social Workers.

152.1(4) Clerical. Every agency shall have clerical services to keep correspondence, records, bookkeeping, and files current and in good order.

152.2(238) Personnel practices. The agency shall have a written statement of personnel practices adopted by the board. This statement shall be made available to an employee at the time of his employment and shall cover the following areas: Job classification for both professional and clerical positions, beginning salary, salary increases, vacation, sick leave, educational leave, retirement provisions, insurance covering workmen's compensation, attendance at social work conferences and institutes, probationary period in accordance with agency policies, an evaluation plan, and hours of work.

152.2(1) Exception. If the employing agency does not have any of the above-enumerated policies, the written statement made available to the employee shall so state.

152.3(238) Personnel records. A personnel record shall be maintained for each employee or staff member and shall contain the following information: Application showing qualifica-

tion and experience, statements from previous employers and personal references, reports of job performance including the annual evaluation, medical reports if any, dates of employment, separation and reason for separation.

152.3(1) Annual evaluation. The work and performance of each staff member shall be evaluated each year, made known to employee and made part of his record.

152.4(238) Staff development. Provision shall be made for improvement of staff competence through an in-service training program, attendance at professional conferences and workshops, and the use of current professional literature.

CHAPTER 153

SOCIAL SERVICES

153.1(238) Program services. An agency shall have an adequate social service program to meet the needs of the children under its care.

153.1(1) Social study. A complete social study shall be made prior to acceptance of a child for care, or in an emergency, within a reasonable period following acceptance.

153.1(2) Home studies. An adequate home study shall be made of all adoptive homes and foster family homes to determine their abilities to meet the needs of the individual children to be placed.

153.1(3) Preschool children. Children five years of age or under shall be placed in foster family homes while awaiting adoption except with special approval of the state board of social welfare.

153.1(4) Placement agreement. The agency shall obtain a signed placement agreement from the child's parents or guardian prior to accepting the child for placement.

a. The agreement shall authorize the agency to place the child.

b. The agreement shall authorize emergency medical treatment including the administering of anesthesia.

c. The agreement shall set forth the terms of payment for care.

153.1(5) Limited case loads. The number of cases carried by each worker shall be limited so as to allow time for effective service to each child and his family accepted for service. A maximum of sixty children or the equivalent shall be considered a case load for an individual caseworker.

153.1(6) Supervision. The agency shall provide its casework staff with adequate supervision to carry out the casework program.

153.2(238) Continuing social services. The agency shall make provision for continued social services while the child is in its care.

153.2(1) Parent-child contacts. Contacts between parents and children shall be encour-

aged except where visits are clearly detrimental to the child's welfare or where permanent separation is planned.

153.2(2) Casework with the child. The child shall have continued casework services which include evaluations of the child's progress, understanding of his changing needs, the use he is making of placement and the ultimate long-range plan.

153.2(3) Supervision of foster home. Frequency of supervisory visits will vary dependent upon the needs of the individual child and foster parents, but shall be frequent enough to insure adequate service to both.

153.2(4) Adoption studies. The agency shall prior to placement of a child for adoption secure and evaluate information regarding the adoptive family's emotional maturity, finances, health, relationships, and all factors which may affect their ability to accept the child, care for him and provide him an adequate home as he matures.

153.2(5) Discharge and aftercare. Before a child is discharged to parents or the court who placed him, the agency shall take responsibility for evaluating the future plan for the child. Follow-up service and supervision shall be provided for, either by the agency or referral to another appropriate agency in accordance with the individual's needs and desires of the child and his parents.

153.3(238) Licensing of foster family homes. All foster family homes shall be licensed prior to placing a child in the home.

153.3(1) Home study. A foster family home study shall be completed before a recommendation to license is submitted to the state department of social welfare.

CHAPTER 154

RECORDS

154.1(238) Case records. The agency shall be responsible for maintaining case records of all children accepted for care, all adoptive homes, and all foster family homes.

154.1(1) Access. Authorized representatives of the department of social welfare shall have access to all records and shall respect their confidential nature.

154.1(2) Contents. The child's case record shall contain the intake study, parent's placement agreement, full identifying information, an explanation of custody or legal responsibility, reports of the child's progress, psychiatric or psychological reports, and plans for discharge.

154.2(238) Medical records. The agency shall maintain a medical record for each child in care.

154.2(1) Contents. The medical record shall contain a record of all illnesses, immunizations, communicable diseases, and follow-up treatments.

CHAPTER 155

RELIGION

155.1(238) Religious preferences. The religious preference of the natural parents shall be given consideration in the placement of the child.

CHAPTER 156

HEALTH SERVICES

156.1(238) Medical care. The agency shall see that each child under its care receives needed medical care.

156.1(1) Health examination. The agency shall require a thorough health examination of each child on admission to care.

a. The initial examination of the child shall include developmental history, previous illnesses, injuries, and operations.

156.1(2) Rehabilitation. The agency shall take the necessary steps to assure physical rehabilitation, if indicated, of every child to fullest extent possible.

156.1(3) Written authorization. The agency shall obtain from parent or guardian written authorization for medical and surgical care in-

cluding anesthesia and for necessary immunizations and vaccinations.

156.1(4) Treatment. Provision shall be made for prompt treatment in case of illness and for carrying out corrective measures and treatment of remedial defects or deformities, if possible.

156.2(238) Dental care. A thorough dental examination shall be made as soon as possible after acceptance for placement and at least once a year thereafter.

156.3(238) Hospital care. The agency shall provide hospitalization as needed for children under care.

156.4(238) Clothing. The agency shall assure adequate and individualized clothing for each child under care.

CHAPTER 157

EDUCATION

157.1(238) Education. The agency shall provide academic or vocational training in accordance with the abilities and needs of the individual children.

[Filed December 14, 1967]

STATE PRESERVES ADVISORY BOARD

CHAPTER 1

MANAGEMENT OF STATE PRESERVES

1.1(111B) General provisions.

1.1(1) Definitions. As used in these rules, the following terms shall have the meanings indicated, except where the context otherwise requires. "Act" means "An Act to establish a system of state preserves and to provide for the control and management of same", as it is codified as chapter 111B, of the Code. "Board" means the State Preserves Advisory Board established by this Act. "Articles of dedication" means the term articles of dedication as that term is used in section 111B.9 of the Act. "Master Plan" means a plan for management of an individual preserve as described in part 1.7(111B) of these provisions. "Commission" means the state conservation commission of the state of Iowa. "Preserve" means an area of land or water, or both land and water, formally dedicated under the provisions of the Act.

In the management of preserves, in the state system of preserves, five major classes are recognized:

a. "Nature preserves". These areas which are of value primarily because they contain natural flora and fauna which have undergone little or no disturbance by modern man, or which contain species which are in danger of extinction in the state of Iowa.

b. "Archeological preserves". These are areas which contain deposits of archeological importance.

c. "Historical preserves". These are areas which contain structures or objects which are of significance in studying the tenure of man in Iowa since the advent of the first explorers.

d. "Geological preserves". These are areas which contain rare or distinctive geological features or deposits.

e. "Scenic preserves". These are areas which contain scenic features of scientific or educational value.

1.1(2) Applicability of rules. Management of each Iowa preserve shall be in accordance with these rules except only as may be provided in the articles of dedication of the preserve or in the master plan therefore.

There shall be a master plan for each preserve, such plan to be in the form hereinafter indicated.

Whenever it is required by the articles of dedication, or otherwise provided in the master plan, that there be a deviation from these rules in the management of a preserve, such deviation shall be set forth in detail, together with the reasons therefore, in the master plan. A deviation from these rules shall take effect only by majority vote of the board. Written notice of the change in these rules shall be given to the board members at least ten days prior to the vote of the board.

1.1(3) Administration and custody. The method of administration and custody of each preserve shall be designated in the master plan. The master plan shall designate an agency or individual as custodian of the preserve. In case of resignation, death, disability, or other failure of the custodian to administer and manage a preserve in accordance with these rules and the master plan, the commission may, with the approval of the board, undertake such custodial functions as may be necessary for the maintenance and protection of the preserve, until the disability of the custodian is removed, or a successor is designated.

1.1(4) Reports. The custodian shall submit periodic reports to the commission and the board in such form and at such time as the commission and the board may designate. The reports shall constitute a portion of the record to be kept for each preserve.

1.1(5) Intrusions. No intrusions, including but not limited to structures, easements, rights of way, and other uses which are not related to the purposes and definition of a preserve as specified or as permitted by these rules, shall be allowed to continue or to be established unless recorded in the articles of dedication in the manner prescribed in the Act.

1.2(111B) Structures and facilities.

1.2(1) Boundary marking. Preserve boundaries which shall be recorded with the county recorder in the county or counties in which the preserve is located, shall be made clearly evident by placing permanent markers or fences as necessary.

1.2(2) Access lanes. Vehicular access lanes will be installed and maintained in preserves only where necessary to implement the use and protection of the areas. They will be located and constructed in accordance with the master plan. Their use will be limited to vehicles authorized in the master plan.

1.2(3) Firebreaks. Necessary boundary firebreaks shall be constructed in a buffer area outside the preserve if possible. Firebreaks within a preserve shall be kept to a minimum and shall be constructed only in accordance with the master plan.

1.2(4) Trails and walks. Location and form of any trails and walks, other than natural wildlife paths, shall be specified in the master plan. Trails and walks shall be adequate to provide for permitted use of a preserve and to prevent erosion, trampling of vegetation, and other deterioration; but otherwise shall be kept to a minimum. Use of surface materials, footbridges and elevated walks is permissible when necessary and provided for in the master plan.

1.2(5) Other structures and improvements. Necessary signs, trash receptacles, service areas, and minor structures required to house research instruments or hand tools are permitted if provided for in the master plan.

Signs and structures shall conform to such style and standards as the commission and the board may establish.

1.3(111B) Management of adjacent land.

1.3(1) Buffer areas. Buffer areas may be established adjacent to all areas, particularly small ones, wherever possible, in order to eliminate the adverse effects of external influences. Buffer areas may be controlled by ownership, dedication, easement, or other appropriate means. Provisions for buffer areas shall be included in the master plan, where such areas are possible.

1.3(2) Service areas. Service areas may be established to provide access and parking, management facilities, and visitor facilities. Provisions for necessary service areas shall be included in the master plan.

1.4(111B) Land management practices.

1.4(1) Scenic and landscape management. No measures will be taken to alter the features of the preserve which would destroy the characteristics for which the area is preserved.

1.4(2) Removal or introduction of objects. Except as provided in the master plan, there shall be no removal or consumptive use of any material, product, or object from a preserve and there shall be no introduction of any material, product, or object to a preserve.

1.4(3) Environmental and biotic management. The control of management of environmental or biotic factors will be restricted to those techniques in normal use in state parks unless further limited in the appendix of these management rules or designated otherwise in the master plan.

1.5(111B) Management of visitors and use.

1.5(1) Use of preserves. Use of preserves shall be allowed only to such extent and in such manner as will not impair the conditions for which the site is preserved. The master plan will define tolerance of the various portions of the area and shall set up controls and restrictions to be placed on access and use. A map of the allowable use, intensity zones, shall be included in the master plan. If the allowable use results in apparent disturbance of the area, the custodian will be empowered to restrict access until the classification can be re-evaluated.

The above restrictions are designed to protect the areas and not to excessively restrict proper utilization. Whenever possible, maximum utilization of the preserve should be encouraged commensurate with its continued existence.

1.5(2) Classes of visitors. Visitors to a preserve may be divided into three classes: Casual (persons who come individually or in small groups without prior arrangements); Organized (persons who come in larger groups under more definite leadership); and Research (persons who come to carry on serious studies

or creative work relating to matters within a preserve).

Provisions shall be made in the master plan and in custodial operations for handling each of these classes of visitors. The custodian shall classify visitors into these groups for purposes of visitor control and management of use of the preserve, and may restrict each class in such manner as is appropriate and necessary for the protection and proper management of the preserve.

1.5(3) Character of visitor activity—prohibited activities and practices. The principal visitor activities in a preserve shall be walking and observing. These activities shall be regulated to prevent disturbance of a preserve beyond what it can tolerate without permanent deterioration. Visitors without permits for research or educational activities shall generally be restricted to trails or walks and may be otherwise restricted in movement. Persons wishing to traverse a preserve elsewhere than on trails and walks shall obtain permission from the custodian.

Activities and uses which are unrelated to observation and study are prohibited unless included in the master plan. Prohibited activities include but are not limited to picnicking, camping, games and sports, horseback riding, wheeled vehicular traffic, gathering of plants or plant products, hunting, fishing, trapping, and removal, disturbance, molestation, or defacement of minerals, fossils, plants, animals, or natural features. There shall be no collecting except with the permission of the board. No dogs or other animals shall be brought into a preserve, leashed or unleashed unless permitted in the master plan.

There shall be no fires, littering, or smoking except as permitted by the master plan.

1.5(4) Access control. Ingress and egress shall be allowed only at such locations and under such conditions as may be specified in the master plan.

The custodian shall have authority to further limit the number of visitors, the visiting hours, and the movement of visitors within the preserve, or to restrict visitor presence and activities in such other manner as may be necessary for the protection and proper management of the preserve.

1.5(5) Orientation and guidance of visitors. There may be an interpretive program for the orientation and guidance of visitors. Exhibits, programs, and printed materials may be provided in service areas. Guide service and labeled trails and walks may be provided within the preserve. The interpretive program shall conform to the provisions of the master plan and to such additional general or special rules as the board may establish.

1.5(6) Permits for research or educational activities. Research or educational activities not otherwise permitted in these rules or in the master plan may be authorized by the board if approved by the dedicator.

Each individual who wishes to engage in such activity must obtain a permit from the board in writing.

1.6(111B) Management research. In addition to the systematic accumulation of descriptive and management information in the master plan and to other routine or casual accumulation of such information, there shall be continuing studies of the general problems of managing nature preserves and the particular problems of each preserve in such manner as the board may determine.

1.7(111B) Plans and records.

1.7(1) Master plan. Responsibility for preparation, revision, and adoption of the master plan for each preserve shall rest with the board. However, the custodian and other interested persons may participate in the formulation of master plans. Except for deviation from these rules, the master plan for each preserve and revisions thereto shall take effect upon approval by the board. A deviation from these rules shall take effect only as provided in rule 1.2(111B).

The master plan shall consist of text and maps. The amount of detail may vary according to circumstances. The form and content shall be as the board may establish. An up-to-date copy of the master plan shall be held by the custodian, the dedicator, the board, and the commission.

1.7(2) Record. A record shall be kept in triplicate for each preserve. One copy shall be held by the custodian, one by the commission and one by the board. These copies shall be open to public inspection.

[Filed March 17, 1967]

TREASURER OF STATE

[The following rules relating to motor fuel tax were promulgated by the Treasurer of State prior to transfer of such administration to the Revenue Department.]

MOTOR FUEL TAX

1. Withdrawals from marine and pipe-line terminals.

Par. 1. No person, firm or corporation owning, leasing, possessing or operating a marine or pipe line with one or more outlets, termi-

nals or storage facilities in the state of Iowa shall withdraw any motor vehicle fuel or petroleum product therefrom except through meters and accompanying accessories installed at the points of withdrawal, all of which, including the installation, shall have been first approved by the treasurer of state.

Par. 2. No change shall be made in the methods of withdrawal until after the new method has first been approved by the treasurer of state.

Par. 3. Reports of withdrawals, on prescribed forms, shall be made to the treasurer of state, as required by him.

Par. 4. The treasurer of state reserves the right to waive the provisions of paragraph 1 of this regulation when withdrawals are made solely into railroad tank cars and the treasurer of state is satisfied that such withdrawals are accurately recorded and accounted for.

2. Transportation of liquefied gas by liquefied gas retailers. The transportation in any conveyance by a liquefied gas retailer of liquefied gas in bottles or drums in a gross amount of not to exceed 700 pounds at any one time shall not be construed to be a transportation in bulk so as to require the liquefied gas retailer so transporting to hold a motor vehicle fuel transport license.

3. Use of double-faced carbon in preparation of refund invoices. Only double-faced carbon paper shall be used in preparing invoices showing the purchase of motor vehicle fuel on which a refund of the state gasoline tax is to be claimed.

4. Enforcement officers designated. Each auditor, each inspector and each investigator employed in the motor vehicle fuel tax division shall act as an enforcement officer in enforcing chapter 324, of the Code, shall be vested with the powers of peace officers in the performance of such duties.

SPECIAL FUEL

No diesel fuel shall be dispensed or delivered by an Iowa licensed special fuel dealer into the fuel supply tank of any motor vehicle, except through a state of Iowa sealed metered computing pump permanently installed at a licensed special fuel dealer's location.

INTERSTATE MOTOR VEHICLE FUEL USE

In compliance with section 324.54 of the Iowa motor vehicle fuel tax law. A permittee has the privilege of entering or leaving this state with any amount of motor vehicle fuel. For that privilege the permittee must pay tax on all motor vehicle fuel purchased in this state, and shall pay tax on the amount consumed less the amount purchased in the month for which the report is made.

Each permittee shall file a report each month. If no travel takes place in Iowa write NONE after "Miles Traveled in Iowa."

The report must be filed with the treasurer of state on or before the last day of the calendar month following the month in which the fuel was imported into this state in the fuel tanks of motor vehicles. Add ten percent penalty for late filing.

The operation for each month shall be separate. No credit for excessive motor vehicle fuel purchased in Iowa in one month shall be taken for any subsequent month.

The mileage shall be the actual miles traveled in Iowa and the tax shall be computed on the total amount of motor vehicle fuel consumed in this state during the month.

Each permittee must be prepared to prove by adequate records the correctness of the "Miles Traveled in Iowa" and the "Average Miles per Gallon" to the field auditors of this division.

The tax shall be computed separately under each section on the total number of gallons of motor vehicle fuel consumed in the state of Iowa.

No allowance shall be made for fuel purchased in excess under one section to offset fuel purchased under the other section.

A permittee shall not deduct twenty gallons per trip.

Proof of motor vehicle fuel purchased in Iowa shall be in the form of original invoices of purchases. These invoices are not to be mailed to the state of Iowa, but are to be kept in the permit holder files except when requested.

When errors in computation result in an overpayment of taxes a credit memorandum in the amount of the overpayment will be issued and is to be used as credit on the next month's report. Credit memorandums not used within sixty days from date of issue will be canceled.

MOTOR VEHICLE FUEL TAX COMPUTATION

For the purpose of determining the amount of liability of tax imposed, the motor vehicle fuel tax on all purchases of a distributor shall be reported and computed on either gallons loaded or adjustment of 60° F. figure for one calendar year. Any change must be requested from the motor vehicle fuel tax division in writing.

Where a distributor has more than one motor vehicle fuel supplier, the distributor shall not report and compute the tax on purchases from one supplier on 60° F. temperature adjustment and from other suppliers on gallons loaded.

Invoiced gallonage shall mean the amount shown on the Bill of Lading or Manifest.

The state recommends that the same motor vehicle fuel sales invoices as required by section 324.17 of the Iowa motor vehicle fuel tax law for sales invoices subject to tax refund be used for sales to truckers. The state however will accept sales to trucker invoices meeting simpler specifications as follows:

a. Name and address of the filling station must be printed and name and address of the purchaser must be written or stamped on each invoice.

b. It must be the original top invoice prepared by the seller with double-faced carbon paper under the original. Carbon copies are not acceptable.

c. Invoices must bear serial numbers. General merchandise sales pads bearing numbers 1 to 50 only, are not acceptable.

d. Credit card invoices are acceptable if issued as credit sales. Credit card invoices issued covering cash sales are not acceptable.

e. Date, type of fuel, and gallons must be shown on the invoice.

IDENTIFICATION OF MOTOR VEHICLE FUEL HIGHWAY TRANSPORTS

A vehicle as used in the statute shall mean the trailer tank unit, or other similar transport equipment used for transportation of motor fuel, the purpose of which is to contain and transport motor vehicle fuel in quantities of four thousand gallons or more on the public highways of the state of Iowa. A motor vehicle fuel transport license plate is to be attached to the front and rear end of any such unit. The two plates on each vehicle must be identical and shall not be transferred from one vehicle to another.

REFUNDS OF MOTOR VEHICLE FUEL TAX

Any invoice in support of a claim for refund must be filed within three calendar months from the date of purchase of the fuel. The filing date shall be the date the claim is received in the office of the treasurer of state and not the date the claim is signed, or the envelope is postmarked. Any invoice not received within the time limitation will be disallowed and deducted from the claim.

DIESEL FUEL TAX

Before selling diesel fuel in bulk to dealers and users, the seller must ascertain if the purchaser has a tax-free or a tax paid special fuel license with the state of Iowa.

A distributor or supplier must sell special fuel dealers and special fuel users according to the type of special fuel license issued to the dealer or user by the state of Iowa.

All dealers and users who are sold diesel fuel in bulk must have a tax-free or tax paid special fuel license.

REFUNDS TO NONLICENSEES

a. The name and address of each person for whom the service was performed.

b. The date and amount of processing of products of each job.

c. A copy of the invoice covering the service performed on each job.

d. The date and mileage of each trip made.

e. If the owner or operator has a current special fuel Users License with the state, a record must be kept of the gallons of fuel dispensed from bulk storage into the fuel tank of each vehicle.

f. All records pertaining to the refund claim are to be made available to the state on request.

TAX CREDIT MEMORANDUMS

9 (324) The application for motor fuel or special fuel tax credit memorandum shall contain the following information:

a. Date of job or work.

b. Type of job or work.

c. Amount of work performed each job.

d. Customer name and address.

e. Invoice or bill of lading number of each job.

f. Type of fuel used each job.

g. Gallons of fuel used for each nonhighway job or operation for which the application is made.

h. Application for tax credit memorandum on the fuel used for nonhighway purpose must be submitted with the motor vehicle fuel tax report of the same month. Claims submitted covering any other period will not be allowed.

This rule is intended to implement section 324.16.

10 (324) The application for motor fuel or special fuel tax credit memorandum shall be submitted as follows:

Application Form MVF 41 for tax credit memorandum on the fuel used in a bordering state must be submitted with the motor vehicle fuel tax report Form MVF 14 of the same month. Claims submitted covering any other period will not be allowed.

SALES INVOICE

11 (324) Every retail motor vehicle fuel dealer when making a sale of motor vehicle fuel which has been dispensed into the fuel supply tank of a motor truck, shall give to each purchaser upon demand a sales invoice meeting the following requirements:

Name and address of the service station must be machine printed and name and address of the purchaser must be written or stamped on each invoice. Where more than one station is owned by the same company the firm name and home address must be machine printed and the station locations may be rubber stamped. It must be the original top invoice prepared by the seller with double-faced carbon paper under the original. Invoices must bear serial numbers of three or more digits. Credit card invoices are acceptable if issued as credit sales. Credit card invoices issued covering cash sales are not acceptable. Such a sales invoice must be issued on demand even though the sale be on an open account or charge basis and in such event must be marked to show this fact at the time of issuance. Date, type of fuel and gallons must be shown on the invoice.

This rule is intended to implement section 324.54 of the Code.

INTERSTATE OPERATIONS PERMIT

If a person engaging in interstate operations is operating in a lessor-lessee arrangement, it shall be the responsibility of the lessee to secure a permit as required under section 324.53 and to compute, report, and remit all motor vehicle fuel taxes due the state of Iowa.

This rule is intended to implement sections 324.52 and 324.53 of the Code.

WATCHMAKING EXAMINERS

1. Examination time limit. All applicants must complete the practical examination within ten hours.

2. Passing grades. A passing grade in the examination for certificate of registration shall be an average of seventy-five percent, in each subject.

3. Retake requirements. Persons failing in the examination shall be required to take an examination in all subjects in which their grades were less than seventy-five percent, and upon receiving a passing grade in said subjects and a passing grade in the examination, a certificate of registration may be issued.

4. Examination grades—mailed out. Examination grades will not be given to applicant on the day of examination. All grades are determined by the board during meetings at which a quorum is present. The applicant shall be notified by mail.

5. Applicant failing—may be apprenticed. An applicant, failing to pass the required examination, may be apprenticed to a registered watchmaker, and issued a certificate as such. The applicant must, however, again appear for examination within six months.

6. Reserved for future use.

7. Repair records required. Every registered and apprentice watchmaker shall keep a repair record of all repairs made by him, for at least one year thereafter. This record shall set out the number for each respective repair, the date such repairs were made, what repairs were made, the price charged for such repair, and the name and address of the owner of each such repaired timepiece. The number of each repair job shall be marked on the inside of the back of the case.

8. Unethical conduct—defined. Unethical conduct is defined as follows:

a. It shall include and mean any conduct of a character which is likely to mislead, deceive or defraud the public.

b. The loaning of a certificate of registration to any person.

c. The failure to display the certificate of registration conspicuously at all times, as required by statute.

d. The representation that a watch has been cleaned, although its major parts, train wheels and mainspring, have not been disassembled and the cap jewels removed and all parts thereof properly cleaned, with the exception of watches cleaned by the ultra-sonic method.

e. Performance of any work upon a timepiece in an unworkmanlike or unskilled manner.

f. Representation that certain services or parts are necessary, or have been or will be

used in the repair of a timepiece, when such parts or services are not necessary, and have not been used in such repairs.

g. Employment of any unregistered watchmaker to perform any watchmaking or repairs on timepieces.

9. No certificate of registration will be revoked while the holder thereof is an active member of the military or naval forces of the United States or engaged as a civilian in the service of the federal government for national defense work during a period of national emergency or limited national emergency, provided such holder is not, during said time, engaged in the practice of watchmaking in this state. Upon the return of the holder to the practice of watchmaking, his certificate may be renewed upon payment of the renewal fee of the then current year.

THE STANDARDS OF WORKMANSHIP AND SKILL (Sec. 120.7 of the Code)

Part 1. Practical demonstration of applicant's skill in the manipulation of watchmaker's tools. Time limit ten hours.

Subject A. Applicant furnishes a pocket watch which will meet the following requirements: Twelve or sixteen size, fifteen or more jewels, double roller and rivet-type staff. He is required to fit a factory staff and completely overhaul, repair and reassemble.

Subject B. Applicant given a bracelet size watch without a stem. Required to completely make and fit a stem.

Subject C. Applicant will be furnished the measurements of a balance staff and he is required to make a staff to measurements.

Bench, lathe and attachments, staking tool and cleaning machine are furnished. Applicants are asked to bring their own small tools, poisoning tool, calipers, tweezers, gravers, micrometer, screw drivers, polishing slips and steel for making staff and stem. This request is in the interest of the applicant, as we desire that each applicant work under the least possible handicap.

Part 2. Examination of theoretical knowledge of watch construction, repair, and adjustment. Time limit five hours.

Subject A. Written examination, fifty questions.

Requirements for passing: This examination, in effect, constitutes the definition of standards required by statute. Every individual, to receive a certificate of registration, legally empowering or licensing him to practice this profession, must have the ability to pass the above examination with a grade of at least seventy-five percent, in each part of the examination.

[Filed prior to July 4, 1952; amended March 2, 1971]

WATER POLLUTION CONTROL COMMISSION

CHAPTER 1

SURFACE WATER QUALITY STANDARDS

1.1(455B) Water quality standard relating to floatable and settleable solids. The waters of the state shall be kept free of floatable and settleable solids as hereinafter provided.

1.1(1) Municipal effluent standard. No municipality shall discharge any sewage to the waters of the state without effective removal of floatable and settleable solids as the minimum degree of treatment.

1.1(2) Reserved for future use.

These rules are intended to implement chapter 455B of the Code.

1.2(455B) Surface water quality criteria.

1.2(1) General policy considerations. Surface waters are to be evaluated according to their ability to support the legitimate (beneficial) uses to which they can feasibly be adapted, and this specific designation of quality areas shall be done by the Iowa water pollution control commission.

Sampling to determine conformance to these criteria shall be done at sufficient distances downstream from waste discharge points to permit adequate mixing of waste effluents with the surface waters.

1.2(2) General criteria. The following criteria are applicable to all surface waters at all places and at all times:

a. Free from substances attributable to municipal, industrial or other discharges that will settle to form putrescent or otherwise objectionable sludge deposits;

b. Free from floating debris, oil, scum and other floating materials attributable to municipal, industrial or other discharges in amounts sufficient to be unsightly or deleterious;

c. Free from materials attributable to municipal, industrial or other discharges producing color, odor or other conditions in such degree as to be detrimental to legitimate uses of water;

d. Free from substances attributable to municipal, industrial or other discharges in concentrations or combinations which are detrimental to human, animal, industrial, agricultural, recreational, aquatic or other legitimate uses of the water.

1.2(3) Specific criteria for designated water uses. The following criteria are applicable at flows greater than the lowest flow for seven consecutive days which can be expected to occur at a frequency of once every ten years.

a. Public water supply. The following criteria for surface water quality apply to the point at which water is withdrawn for treatment and distribution as a potable supply:

(1) *Bacteria.* Waters shall be considered to be of unsatisfactory bacteriological quality as a source when:

A sanitary survey indicates the presence or probability of the presence of sewage or other objectionable bacteria-bearing wastes or

A bacteriological survey using coliform or other appropriate indices indicates bacteriological concentrations significantly higher than those normally found or expected in these waters when free from pollution by sewage.

(2) *Radioactive substances.* Gross beta activity (in the known absence of strontium-90 and alpha emitters) not to exceed 1000 micro-microcuries per liter.

(3) *Chemical constituents.* Not to exceed the following concentrations:

Specific constituents (mg/l)			
Arsenic	0.05	Cyanide	0.025
Barium	1.0	Flouride	1.5
Cadmium	0.01	Lead	0.05
Chromium		Phenols	0.02
(hexavalent)	0.05		

All substances toxic or detrimental to humans or detrimental to treatment processes shall be limited to nontoxic or nondetrimental concentrations in the surface water.

b. Aquatic life. The following criteria are designed for the maintenance and propagation of a well-balanced fish population. They are applicable to any place in surface waters but cognizance will be given to opportunities for admixture of waste effluents with such waters.

(1) *Warm water areas.* Dissolved oxygen: Not less than 5.0 mg/l during at least 16 hours of any 24-hour period and not less than 4.0 mg/l at any time during the 24-hour period.

pH: Not less than 6.8 nor above 9.0.

Temperature: Not to exceed 93° F. during the months of May through November, and not to exceed 73° F. during the months of December through April.

Chemical constituents: Not to exceed the following concentrations:

Specific constituents (mg/l)			
Ammonia		*Chromium	
Nitrogen (N)	2.0	(trivalent)	1.00
*Arsenic	1.0	*Copper	0.02
*Barium	5.0	Cyanide	0.025
*Cadmium	0.05	*Lead	0.10
*Chromium		Phenols	0.20
(hexavalent)	0.05	*Zinc	1.0

*A maximum of 5.0 mg/l for the entire heavy metal group shall not be exceeded.

All substances toxic or detrimental to aquatic life shall be limited to nontoxic or nondetrimental concentrations in the surface water.

(2) *Cold water areas.* All criteria stated for warm water areas apply to cold water areas except as follows:

Dissolved oxygen: Not less than 7.0 mg/l during at least 16 hours of any 24-hour

period nor less than 5.0 mg/l at any time during the 24-hour period.

Temperature: No greater than 70°F.

c. Recreation. The following criteria are applicable to any waters used for recreational activities involving whole body contact such as swimming and water skiing:

Bacteria: Waters shall be considered to be of unsatisfactory bacteriological quality for the above recreational use when:

A sanitary survey indicates the presence or probability of the presence of sewage or other objectionable bacteria-bearing wastes or

A bacteriological survey using coliform or other appropriate indices indicates bacteriological concentrations significantly higher than those normally found or expected in these waters when free from pollution by sewage.

These rules are intended to implement sections 455B.9 and 455B.13 of the Code.

1.3(455B) Confined feeding operations waste water disposal.

1.3(1) Definition. Confined feeding operations for livestock and poultry in which potential pollution may exist and subject to regulations are defined as follows:

Cattle feed lot is one or more adjacent or nearby cattle enclosures on a single property where there are at least 100 cattle and where animal population is greater than one animal for each 600 square feet.

1.3(2) Conditions requiring registration. Registration of the following confined feeding operations is required when one or more of the following conditions exist:

a. Cattle.

(1) The number of cattle confined in a feed lot exceeds 1,000 head;

(2) The feed lot contributes to a watercourse draining more than 3200 acres of land above the lot and the distance to the nearest point on the affected watercourse is less than two feet per head of cattle in the feed lot;

(3) The runoff water from a feed lot or overflow from a lagoon or liquid manure storage tank flows into a tile line or other buried conduit, drainage well, pumped well, abandoned well or sinkhole.

b. Reserved for future use.

1.3(3) Required information under conditions requiring registration.

a. Persons engaged in livestock and poultry operations described in rules 1.3(1) and 1.3(2) prior to July 1, 1969 shall upon notification register such operation with the commission. Persons intending to initiate livestock and poultry operations as described in rules 1.3(1) and 1.3(2) shall register such operation with the commission before commencing such operations and provide such information as the commission may reasonably require. Such information shall be made on a form supplied by the state department of health;

b. Operators shall submit the completed registration form to the department together with supplemental information regarding general features of topography, drainage course and identification of ultimate primary receiving streams. Additional information which may be deemed necessary for satisfactory evaluation of potential pollution may be required by and shall be submitted to the department;

c. If the department determines that a proposed or existing confined feeding operation does not constitute a water pollution problem because of location, topography, or other reasons, provisions for water pollution control facilities will not be required;

d. If the department determines that a confined feeding operation is, in fact, polluting or may reasonably pollute waters of the state, the operator shall obtain a permit for disposal of waste water therefrom and shall provide necessary water pollution control facilities which shall be constructed in accordance with plans and specifications approved by the department. The following factors will be considered when applicable, in forming a judgment as to whether a confined feeding operation will or will not constitute a potential water pollution problem:

(1) Soil type.

(2) Distance to stream.

(3) Use of land between feed lot and stream.

(4) Slope of land or time for waste to seep into soil before entering stream.

(5) Control of waste discharge in proportion to stream flow.

(6) Distance to structures occupied by humans.

1.3(4) Requirements for facilities. Required water pollution control facilities shall be constructed and maintained to meet the minimum requirements stated in the following paragraphs; provided that when site topography, operating procedures, and other available information indicate that adequate water pollution control can be effected with less than the minimum requirements, the minimum requirements may be waived; provided further that if site topography, operating procedures, experience, and other available information indicate that more than minimum requirements will be necessary to effect adequate water pollution control, additional control provisions may be required.

a. The minimum water pollution control facilities for the uncovered confined feeding operations shall be terraces or retention ponds capable of containing three inches of surface runoff from the feed lot area, waste storage areas, and all other waste contributing areas. Diversion of surface drainage prior to contact with the confined feeding area or manure or sludge storage areas shall be required. A settling basin preceding the retention ponds shall be provided where necessary to facilitate sol-

ids removal. Waste retained in detention ponds shall be disposed of as soon as practicable to insure adequate retention capacity for future needs;

b. Waste treatment or other methods of water pollution control shall be permitted where the department determines that effective results will be obtained;

c. Waste handling facilities shall be designed and reviewed in conformance with chapter 114 of the Code. Services of personnel of the local soil conservation districts may be used in the design and layout of water pollution control facilities. If waste treatment facilities consist only of pond or lagoon type structures, there shall be a minimum of two such structures for series operation.

1.3(5) Operation of facilities.

a. The water pollution control facilities shall be operated and maintained so as to prevent water pollution and to protect the public health and beneficial uses of the waters of the state;

b. Waste discharges from retention ponds, lagoons, or waste treatment facilities into any watercourse shall be in conformance with the appropriate water quality criteria adopted by the Iowa water pollution control commission;

c. Waste materials removed from retention ponds, waste treatment facilities, or confined feeding operations shall be disposed of or stockpiled in a manner which will not contribute to water pollution. Wastes may be used for irrigation or spread on land surface and mixed with the soil in a manner which will prevent runoff of wastes. Other methods of disposal of wastes from retention ponds, retention lagoons, waste treatment facilities or feeding operations shall be evaluated and permitted if the department determines that effective water pollution control will be accomplished.

These rules are intended to implement section 455B.9 of the Code.

[Filed March 15, 1966; amended March 20, 1967, October 14, 1969]

CHAPTER 2

RECORDS OF OPERATION OF WASTE DISPOSAL SYSTEMS

2.1(455B) Definitions.

2.1(1) The definitions set out in section 455B.2 of the Code shall be considered to be incorporated verbatim in these rules.

2.1(2) "Records of operation" when used in these rules and regulations means Iowa state department of health report forms or such other report forms, letters or documents which may be acceptable to the department and which are designed to indicate one or a combination of the following conditions during a stated period of time.

a. Volume, concentration and characteristics of wastes discharged to, discharged from

or in process of treatment in a disposal system.

b. Efficiency of operation of a disposal system.

c. The effect of the waste discharged from a disposal system on the waters of the state.

2.1(3) "Population equivalent" means the number of people required to contribute an equal amount of five-day biochemical oxygen demand (BOD) as the waste in question, assuming that a person contributes 0.167 pounds of five-day BOD per day.

2.1(4) "Biochemical oxygen demand" means the amount of oxygen required to decompose the decomposable organic matter in a waste by aerobic biochemical action in five days at twenty degrees centigrade. The procedure for determining BOD shall be as outlined in the latest edition of Standard Methods for the Examination of Water and Sewage as published by The American Public Health Association.

2.2(455B) Submission of records of operation. Records of operation shall be submitted to the Iowa state department of health by all owners of waste disposal systems which discharge sewage or wastes into any waters of the state. Records of operation need not be submitted for waste disposal systems which discharge to municipal disposal systems, or where the wastes are discharged to soil absorption systems, which do not outlet to any waters of the state.

2.3(455B) Frequency of submitting records of operation. Records of operation required by these rules and regulations shall be submitted at monthly intervals. The state department of health may vary the interval at which records of operation shall be submitted in certain cases. Variation from the monthly interval shall be made only under such conditions as the department may prescribe in writing to the person concerned.

2.4(455B) Content of records of operation. Records of operation shall include such information as the state department of health may require based on the population served by the disposal system, the nature of the treatment process involved and the population equivalent of high strength wastes contributory to the waste disposal system.

2.5(455B) Records of operation forms. Records of operation forms shall be those provided by the state department of health unless their forms are not applicable and in this case the records of operation shall be submitted on such other forms as are agreeable to the state department of health. All reports shall be signed by the person who has direct responsibility for the operation of the disposal system.

These rules are intended to implement chapter 455B of the Code.

[Filed May 10, 1966]

INDEXER'S PREFATORY NOTE

The purpose of this index is to provide an entry into the Iowa Departmental Rules. In general, references are to page numbers and where practicable to rule numbers.

While a uniform system of numbering for the Iowa Departmental Rules has been suggested, not all departments have adopted it as of this printing. Even within the rules of the departments who have attempted to adopt the new uniform numbering system there appear to be some inconsistencies in the subject matter under the new system. In other cases there appears to be no uniformity in the numbering of the rules or consistency of subject matter in a given grouping of rules.

In spite of this, where possible, every attempt has been made to list all relevant subject matter under the main headings used in this index. The researcher should be cautioned that it may be appropriate to look under more than one main heading in some situations.

GEORGE A. ARVIDSON, JR.
Indexer

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