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The Iowa Administrative Code Supplement is published biweekly pursuant to Iowa Code section 17A.6. The Supplement contains replacement pages to be inserted in the loose-leaf Iowa Administrative Code (IAC) according to instructions included with each Supplement. The replacement pages incorporate rule changes which have been adopted by the agencies and filed with the Administrative Rules Coordinator as provided in Iowa Code sections 7.17 and 17A.4 to 17A.6. To determine the specific changes in the rules, refer to the Iowa Administrative Bulletin bearing the same publication date.

In addition to the changes adopted by agencies, the replacement pages may reflect objection to a rule or a portion of a rule filed by the Administrative Rules Review Committee (ARRC), the Governor, or the Attorney General pursuant to Iowa Code section 17A.4(4); an effective date delay imposed by the ARRC pursuant to section 17A.4(5) or 17A.8(9); rescission of a rule by the Governor pursuant to section 17A.4(6); or nullification of a rule by the General Assembly pursuant to Article III, section 40, of the Constitution of the State of Iowa.

The Supplement may also contain replacement pages for the IAC Index and for the preliminary sections of the IAC: General Information about the IAC, Chapter 17A of the Code of Iowa, Style and Format of Rules, Table of Rules Implementing Statutes, and Uniform Rules on Agency Procedure.

INSTRUCTIONS

FOR

Updating Iowa Administrative Code
with Biweekly Supplement

NOTE: Please review the "Preface" for both the Iowa Administrative Code and Biweekly Supplement and follow carefully the updating instructions.

The boldface entries in the left-hand column of the updating instructions correspond to the tab sections in the IAC Binders.

Obsolete pages of IAC are listed in the column headed "Remove Old Pages." New and replacement pages in this Supplement are listed in the column headed "Insert New Pages." It is important to follow instructions in both columns.

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UPDATING INSTRUCTIONS
April 21, 1999, Biweekly Supplement

[Previous Supplement dated 4/7/99]

IOWA ADMINISTRATIVE CODE

	Remove Old Pages*	Insert New Pages
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*It is recommended that "Old Pages" be retained indefinitely in a place of your choice. They may prove helpful in tracing the history of a rule.

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REVENUE AND FINANCE DEPARTMENT[701]	Ch 201, p. 1, 2	Ch 201, p. 1, 2
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*It is recommended that "Old Pages" be retained indefinitely in a place of your choice. They may prove helpful in tracing the history of a rule.

X.15(2) *Special notice.* When the agency makes a rule effective prior to its indexing and publication in reliance upon the provisions of Iowa Code section 17A.5(2)*"b"*(3), the agency shall employ all reasonable efforts to make its contents known to the persons who may be affected by that rule prior to the rule's indexing and publication. The term "all reasonable efforts" requires the agency to employ the most effective and prompt means of notice rationally calculated to inform potentially affected parties of the effectiveness of the rule that is justified and practical under the circumstances considering the various alternatives available for this purpose, the comparative costs to the agency of utilizing each of those alternatives, and the harm suffered by affected persons from any lack of notice concerning the contents of the rule prior to its indexing and publication. The means that may be used for providing notice of such rules prior to their indexing and publication include, but are not limited to, any one or more of the following means: radio, newspaper, television, signs, mail, telephone, personal notice or electronic means.

A rule made effective prior to its indexing and publication in reliance upon the provisions of Iowa Code section 17A.5(2)*"b"*(3) shall include in that rule a statement describing the reasonable efforts that will be used to comply with the requirements of subrule X.15(2).

Agency No.—X.16(17A) General statements of policy.

X.16(1) *Compilation, indexing, public inspection.* The agency shall maintain an official, current, and dated compilation that is indexed by subject, containing all of its general statements of policy within the scope of Iowa Code section 17A.2(10)*"a," "c," "f," "g," "h," "k."* Each addition to, change in, or deletion from the official compilation must also be dated, indexed, and a record thereof kept. Except for those portions containing rules governed by Iowa Code section 17A.2(10)*"f,"* or otherwise authorized by law to be kept confidential, the compilation must be made available for public inspection and copying.

X.16(2) *Enforcement of requirements.* A general statement of policy subject to the requirements of this subsection shall not be relied on by the agency to the detriment of any person who does not have actual, timely knowledge of the contents of the statement until the requirements of subrule X.16(1) are satisfied. This provision is inapplicable to the extent necessary to avoid imminent peril to the public health, safety, or welfare.

Agency No.—X.17(17A) Review by agency of rules.

X.17(1) Any interested person, association, agency, or political subdivision may submit a written request to the administrative rules coordinator requesting the agency to conduct a formal review of a specified rule. Upon approval of that request by the administrative rules coordinator, the agency shall conduct a formal review of a specified rule to determine whether a new rule should be adopted instead or the rule should be amended or repealed. The agency may refuse to conduct a review if it has conducted such a review of the specified rule within five years prior to the filing of the written request.

X.17(2) In conducting the formal review, the agency shall prepare within a reasonable time a written report summarizing its findings, its supporting reasons, and any proposed course of action. The report must include a concise statement of the agency's findings regarding the rule's effectiveness in achieving its objectives, including a summary of any available supporting data. The report shall also concisely describe significant written criticisms of the rule received during the previous five years, including a summary of any petitions for waiver of the rule received by the agency or granted by the agency. The report shall describe alternative solutions to resolve the criticisms of the rule, the reasons any were rejected, and any changes made in the rule in response to the criticisms as well as the reasons for the changes. A copy of the agency's report shall be sent to the administrative rules review committee and the administrative rules coordinator. The report must also be available for public inspection.

CHAPTER X
FAIR INFORMATION PRACTICES

Agency No.—X.1(17A,22) Definitions. As used in this chapter:

"Agency" in these rules means the (official or body issuing these rules).

"Confidential record" in these rules means a record which is not available as a matter of right for examination and copying by members of the public under applicable provisions of law. Confidential records include records or information contained in records that the agency is prohibited by law from making available for examination by members of the public, and records or information contained in records that are specified as confidential by Iowa Code section 22.7, or other provision of law, but that may be disclosed upon order of a court, the lawful custodian of the record, or by another person duly authorized to release the record. Mere inclusion in a record of information declared confidential by an applicable provision of law does not necessarily make that entire record a confidential record.

"Custodian" in these rules means the agency, or a person lawfully delegated authority by the agency to act for the agency in implementing Iowa Code chapter 22.

"Open record" in these rules means a record other than a confidential record.

"Personally identifiable information" in these rules means information about or pertaining to an individual in a record which identifies the individual and which is contained in a record system.

"Record" in these rules means the whole or a part of a "public record" as defined in Iowa Code section 22.1, that is owned by or in the physical possession of this agency.

"Record system" in these rules means any group of records under the control of the agency from which a record may be retrieved by a personal identifier such as the name of an individual, number, symbol, or other unique retriever assigned to an individual.

Agency No.—X.2(17A,22) Statement of policy. The purpose of this chapter is to facilitate broad public access to open records. It also seeks to facilitate sound agency determinations with respect to the handling of confidential records and the implementation of the fair information practices Act. This agency is committed to the policies set forth in Iowa Code chapter 22; agency staff shall cooperate with members of the public in implementing the provisions of that chapter.

Agency No.—X.3(17A,22) Requests for access to records.

X.3(1) *Location of record.* A request for access to a record should be directed to the (insert agency head) or the particular agency office where the record is kept. If the location of the record is not known by the requester, the request shall be directed to (insert agency name and address). If a request for access to a record is misdirected, agency personnel will promptly forward the request to the appropriate person within the agency.

X.3(2) *Office hours.* Open records shall be made available during all customary office hours, which are (insert customary office hours and, if agency does not have customary office hours of at least thirty hours per week, insert hours specified in Iowa Code section 22.4).

X.3(3) *Request for access.* Requests for access to open records may be made in writing, in person, or by telephone. Requests shall identify the particular records sought by name or description in order to facilitate the location of the record. Mail or telephone requests shall include the name, address, and telephone number of the person requesting the information. A person shall not be required to give a reason for requesting an open record.

BLIND, DEPARTMENT FOR THE[111]

[Prior to 7/1/87, see Commission for the Blind[160] Chs 1 to 10]
The Division for the Blind was created within the Department of Human Rights[421] by 1986 Iowa Acts, Chapter 1245
Renamed Department for the Blind, 1988 Iowa Acts, Senate File 2310, sections 29 to 31; section 31 of the Act renumbered sections 601K.121 to 601K.127 as a new chapter.

CHAPTER 1
ADMINISTRATIVE ORGANIZATION AND PROCEDURES

[Prior to 7/1/87, see Blind, Commission for[160] Ch 1; rule 3.6; Ch 9]
[Prior to 9/21/88, see Blind, Division for the[423] Ch 1; Ch 2; Ch 12]

111—1.1(216B) Authority. There is established a department for the blind which shall carry out policies and programs as determined by the commission for the blind.

111—1.2(216B) History and function. To respond to the unique needs of the blind of Iowa, the general assembly established the Iowa commission for the blind on April 1, 1925. Although specific programs for the blind have varied even in recent years, the basic mission to promote positive attitudes toward blindness has remained constant. As a result of state government reorganization in 1986, the commission for the blind became a division of the department of human rights. However, the 72nd General Assembly restored the commission's separate status by establishing a department for the blind.

111—1.3(216B) Location and information. The central office of the department is located at 524 Fourth Street, Des Moines, Iowa 50309-2364, telephone (515)281-1333, (incoming WATS number (800)362-2587). District offices are located at 411 Third Street SE, Suite 745, Cedar Rapids, Iowa 52401-1811, telephone (319)365-9111, (incoming WATS number (888)346-9557); 2915 McClain Drive, Cedar Falls, Iowa 50613-5266, telephone (319)268-2981, (incoming WATS number (888)378-4397). Information concerning department services may be obtained by contacting any of these offices.

111—1.4(216B) Definitions. The following definitions apply to the rules of the department for the blind:

"Blind" or *"Blindness,"* except as applicable to the business enterprises program, refers to the condition of an individual who meets one or more of the following criteria: (1) vision not more than 20/200 central visual acuity in the better eye, with ordinary corrective lenses, or a field defect in which the peripheral field has contracted to an extent that the widest diameter of visual field subtends to an angular distance of not greater than 20 degrees; (2) a combination of loss of visual acuity and loss of visual field which imposes an employment handicap which is substantially that of a blind person; (3) medical prognosis indicating a progressive loss of sight which will terminate in the condition described in criteria one; (4) a visual impairment sufficient to warrant attendance at the Iowa braille and sight saving school or programs for the severely visually impaired in the public schools; or (5) a visual impairment which by agreement of the division of vocational rehabilitation services of the Iowa department of education and the department is such that the individual can be best served by the department.

"Commission" means the three-member statutory commission for the blind.

"Department" means the department for the blind. The department is the state licensing agency for vending facilities under the Randolph-Sheppard Act.

"Director" means the director of the department for the blind.

"Division" means one of the four principal subunits of the department for the blind.

"Extreme medical risk" means a risk of substantially increasing functional impairment or risk of death if medical services are not expeditiously provided.

"Program administrator" means the chief of each of the four divisions of the department for the blind.

"Staff" means individuals employed by the department for the blind.

"State" means the state of Iowa.

111—1.5(216B) Commission. The duties and powers of the commission are as delineated in Iowa Code sections 216B.3 and 216D.3.

1.5(1) *Meetings.* The commission shall hold at least six meetings each year and as many additional meetings as are needed to conduct business expeditiously and efficiently. To the maximum extent practicable, meetings will be held outside normal working hours to encourage attendance.

1.5(2) *Chairperson.* At the first regularly scheduled meeting of each calendar year, the commission shall elect a chairperson.

1.5(3) *Notice.* Notice of meetings, including the proposed agenda, will be posted at all offices of the department. Persons wishing to receive notice of meetings may file a request with the office of the director.

111—1.6(216B) Director. As the chief administrative officer for the department, the director shall be responsible for implementation of commission policies and for administration of programs and services in compliance with applicable federal and state laws and regulations.

111—1.7(216B) Divisions. The director has established the following divisions of the department:

1. Adult orientation and adjustment center
2. Business enterprises program
3. Field operations
4. Library for the blind and physically handicapped

111—1.8(216B) Private association activity of staff. Staff shall not, on a significant regular basis, perform work for private associations or organizations (including organizations of or for the blind) during working hours or with use of department facilities unless arrangements have been formalized through a 28E agreement approved by the commission. Significant organizational activities prohibited in the absence of a formal 28E agreement include, but are not limited to: electioneering for organizational office, processing memberships, collecting dues, arranging for meetings and conventions, fund-raising, canvassing, leafleting, picketing, preparing organizational mailings, and other activities of a purely organizational nature which are unrelated to official staff duties.

However, the department encourages staff to maintain frequent contact with blind individuals and organizations of the blind as well as civic, social, fraternal, and professional groups interested in working with blind individuals.

This rule is not intended to discourage telephone conversations and correspondence with individuals or attendance (with supervisory approval) at meetings of blind or related associations or organizations.

These rules are intended to implement Iowa Code chapter 216B.

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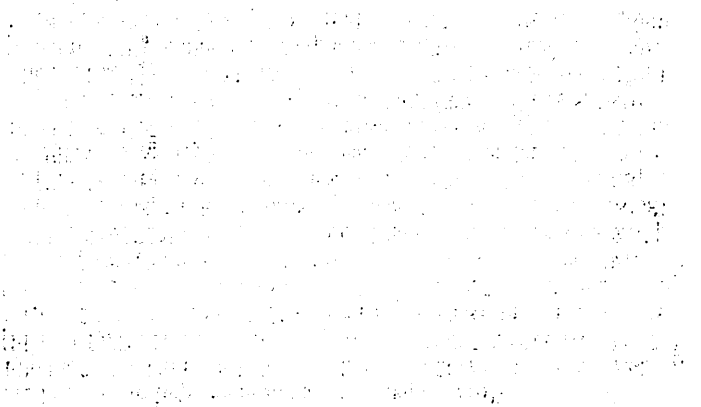

CHAPTER 3
DEPARTMENT PROCEDURE FOR RULE MAKING

[Prior to 9/21/88, see Blind, Division for the[423] Ch 3]

111—3.1(17A) Applicability. Except to the extent otherwise expressly provided by statute, all rules adopted by the commission are subject to the provisions of Iowa Code chapter 17A, the Iowa administrative procedure Act, and the provisions of this chapter.

111—3.2(17A) Advice on possible rules before notice of proposed rule adoption. In addition to seeking information by other methods, the department may, before publication of a Notice of Intended Action as provided in Iowa Code section 17A.4(1)*"a,"* solicit comments from the public on a subject matter of possible rule making by causing notice to be published in the Iowa Administrative Bulletin of the subject matter and indicating where, when and how persons may comment.

111—3.3(17A) Public rule-making docket.

3.3(1) *Docket maintained.* The department shall maintain a current public rule-making docket.

3.3(2) *Anticipated rule making.* The rule-making docket shall list each anticipated rule-making proceeding. A rule-making proceeding is deemed "anticipated" from the time a draft of proposed rules is distributed for internal discussion within the department or from the time of announcement at a meeting of the commission. For each anticipated rule-making proceeding, the docket shall contain a listing of the precise subject matter which may be submitted for consideration by the commission for subsequent proposal under the provisions of Iowa Code section 17A.4(1)*"a,"* the name and address of department personnel with whom persons may communicate with respect to the matter, and an indication of the present status within the department of that possible rule. The department may also include in the docket other subjects upon which public comment is desired.

3.3(3) *Pending rule-making proceedings.* The rule-making docket shall list each pending rule-making proceeding. A rule-making proceeding is pending from the time it is commenced, by publication in the Iowa Administrative Bulletin of a Notice of Intended Action, pursuant to Iowa Code section 17A.4(1)*"a,"* to the time it is terminated, by publication of a Notice of Termination in the Iowa Administrative Bulletin or the rule becoming effective. For each rule-making proceeding, the docket shall indicate:

a. The subject matter of the proposed rule.

b. A citation to all published notices relating to the proceeding.

c. Where written submissions on the proposed rule may be inspected.

d. The time during which written submissions may be made.

e. The names of persons who have made written requests for an opportunity to make oral presentations on the proposed rule, where those requests may be inspected, and where and when oral presentations may be made.

f. Whether a written request for the issuance of a regulatory analysis, or a concise statement of reasons has been filed, whether such an analysis or statement or a fiscal impact statement has been issued, and where any such written request, analysis, or statement may be inspected.

g. The current status of the proposed rule and any department determinations with respect thereto.

h. Any known timetable for department decisions or other action in the proceeding.

i. The date of the rule's adoption.

j. The date of the rule's filing, indexing and publication.

k. The date on which the rule will become effective.

l. Where the rule-making record may be inspected.

111—3.4(17A) Notice of proposed rule making.

3.4(1) *Contents.* At least 35 days before the adoption of a rule, the department shall cause a Notice of Intended Action to be published in the Iowa Administrative Bulletin. The Notice of Intended Action shall include:

a. A brief explanation of the purpose of the proposed rule.

b. The specific legal authority for the proposed rule.

c. Except to the extent impracticable, the text of the proposed rule.

d. Where, when and how persons may present their views on the proposed rule.

e. Where, when and how persons may demand an oral proceeding on the proposed rule if the notice does not already provide for one.

Where inclusion of the complete text of a proposed rule in the Notice of Intended Action is impracticable, the department shall include in the notice a statement fully describing the specific subject matter of the omitted portion of the text of the proposed rule, the specific issues to be addressed by that omitted text of the proposed rule, and the range of possible choices being considered by the department for the resolution of each of those issues.

To facilitate transcription into the alternative medium of braille, cassette tape or large-type format, the complete text of the proposed rule shall be published in the Notice of Intended Action whenever possible.

3.4(2) *Incorporation by reference.* A proposed rule may incorporate other materials by reference only if it complies with all of the requirements applicable to incorporation by reference of other materials in an adopted rule that are contained in subrule 3.12(2).

3.4(3) *Copies of notices.* Persons desiring to receive copies of future Notices of Intended Action by subscription must file with the department a written request indicating the name and address to which such notices should be sent. Within seven days after submission of a Notice of Intended Action to the administrative rules coordinator for publication in the Iowa Administrative Bulletin, the department shall mail or electronically transmit a copy of that notice to subscribers who have filed a written request for either mailing or electronic transmittal with the department for Notices of Intended Action. The written request shall be accompanied by payment of a subscription price which may cover the full cost of the subscription service, including its administrative overhead and the cost of copying and mailing the Notices of Intended Action for a period of one year.

3.4(4) *Provision in alternative media.* Mailed copies of Notices of Intended Action shall be provided in standard print format, unless an individual requests provision of the notices in the alternative medium of braille, cassette tape or large-type format. Notices in the alternative media shall be provided in a timely manner.

111—3.5(17A) Public participation.

3.5(1) *Written comments.* For at least 20 days after publication of the Notice of Intended Action, persons may submit argument, data, and views, in writing, on the proposed rule. Such written submissions should identify the proposed rule to which they relate and should be submitted to the Administrative Rules Coordinator, Department for the Blind, 524 Fourth Street, Des Moines, Iowa 50309 or the person designated in the Notice of Intended Action.

3.5(2) *Oral proceedings.* The department may, at any time, schedule an oral proceeding on a proposed rule. The department shall schedule an oral proceeding on a proposed rule if, within 20 days after the published Notice of Intended Action, a written request for an opportunity to make oral presentations is submitted to the department by the administrative rules review committee, a governmental subdivision, an agency, an association having not less than 25 members, or at least 25 persons. The request must also contain the following information:

1. A request by one or more individual persons must be signed by each of them and include the address and telephone number of each of them.

2. A request by an association must be signed by an officer or designee of the association and must contain a statement that the association has at least 25 members and the address and telephone number of the person signing that request.

3. A request by an agency or governmental subdivision must be signed by an official having authority to act on behalf of the entity and must contain the address and telephone number of the person signing that request.

The department may waive technical compliance with these procedures.

3.5(3) *Conduct of oral proceedings.*

a. Applicability. This subrule applies only to those oral rule-making proceedings in which an opportunity to make oral presentations is authorized or required by Iowa Code section 17A.4(1)*"b"* as amended by 1998 Iowa Acts, chapter 1202, section 8.

b. Scheduling and notice. An oral proceeding on a proposed rule may be held in one or more locations and shall not be held earlier than 20 days after notice of its location and time is published in the Iowa Administrative Bulletin. The notice shall also identify the proposed rule by ARC number and citation to the Iowa Administrative Bulletin.

c. Presiding officer. The director, the department's administrative rules coordinator or a division administrator of the department, as designated by the director, shall preside at the oral proceeding on the proposed rule. If the director does not preside, the presiding officer shall prepare a memorandum for consideration by the director summarizing the contents of the presentations made at the oral proceeding unless the director determines that a memorandum is unnecessary because the director will personally listen to or read the entire transcript of the oral proceeding.

d. Conduct of proceeding. At an oral proceeding on a proposed rule, persons may make oral statements and make documentary and physical submissions, which may include data, views, comments or arguments concerning the proposed rule. Persons wishing to make oral presentations at such a proceeding are encouraged to notify the department at least one business day prior to the proceeding and indicate the general subject of their presentations. At the proceeding, those who participate shall indicate their names and addresses, identify any persons or organizations they may represent, and provide any other information relating to their participation deemed appropriate by the presiding officer. Oral proceedings shall be open to the public and shall be recorded by stenographic or electronic means.

(1) At the beginning of the oral proceeding, the presiding officer shall give a brief synopsis of the proposed rule, a statement of the statutory authority for the proposed rule, and the reasons for the department decision to propose the rule. The presiding officer may place time limitations on individual oral presentations when necessary to ensure the orderly and expeditious conduct of the oral proceeding. To encourage joint oral presentations and to avoid repetition, additional time may be provided for persons whose presentations represent the views of other individuals as well as their own views.

(2) Persons making oral presentations are encouraged to avoid restating matters which have already been submitted in writing.

(3) To facilitate the exchange of information, the presiding officer may, where time permits, open the floor to questions or general discussion.

(4) The presiding officer shall have the authority to take any reasonable action necessary for the orderly conduct of the meeting.

(5) Physical and documentary submissions presented by participants in the oral proceeding shall be submitted to the presiding officer. Such submissions become the property of the department.

(6) The oral proceeding may be continued by the presiding officer to a later time without notice other than by announcement at the hearing.

(7) Participants in an oral proceeding shall not be required to take an oath or to submit to cross-examination. However, the presiding officer in an oral proceeding may question participants and permit the questioning of participants by other participants about any matter relating to that rule-making proceeding, including any prior written submissions made by those participants in that proceeding; but no participant shall be required to answer any question.

(8) The presiding officer in an oral proceeding may permit rebuttal statements and request the filing of written statements subsequent to the adjournment of the oral presentations.

3.5(4) *Additional information.* In addition to receiving written comments and oral presentations on a proposed rule according to the provisions of this rule, the department may obtain information concerning a proposed rule through any other lawful means deemed appropriate under the circumstances.

3.5(5) *Accessibility.* The department shall schedule oral presentations in rooms accessible to and functional for persons with physical disabilities. Persons who have special requirements should contact the Administrative Office, Department for the Blind, (515)281-1333, Iowa WATS (800)362-2587, or TTY (515)281-1355, in advance to arrange access or other needed services.

111—3.6(17A) Regulatory analysis.

3.6(1) *Definition of small business.* A "small business" is defined in 1998 Iowa Acts, chapter 1202, section 10(7).

3.6(2) *Mailing list.* Small businesses or organizations of small businesses may be registered on the department's small business impact list by making a written application to the department administrative rules coordinator. The application for registration shall state:

a. The name of the small business or organization of small businesses.

b. Its address.

c. The name of a person authorized to transact business for the applicant.

d. A description of the applicant's business or organization. An organization representing 25 or more persons who qualify as a small business shall indicate that fact.

e. Whether the registrant desires copies of Notices of Intended Action at cost, or desires advance notice of the subject of all or some specific category of proposed rule making affecting small business.

The department may at any time request additional information from the applicant to determine whether the applicant is qualified as a small business or as an organization of 25 or more small businesses. The department may periodically send a letter to each registered small business or organization of small businesses asking whether that business or organization of small businesses wishes to remain on the registration list. The name of a small business or organization of small businesses will be removed from the list if a negative response is received, or if no response is received within 30 days after the letter is sent.

3.6(3) *Time of mailing.* Within seven days after submission of a Notice of Intended Action to the administrative rules coordinator for publication in the Iowa Administrative Bulletin, the department shall mail to all registered small businesses or organizations of small businesses, in accordance with their request, either a copy of the Notice of Intended Action or notice of the subject of that proposed rule making. In the case of a rule that may have an impact on small business, adopted in reliance upon Iowa Code section 17A.4(2), the department shall mail notice of the adopted rule to registered businesses or organizations prior to the time the adopted rule is published in the Iowa Administrative Bulletin.

3.6(4) *Qualified requesters for regulatory analysis—economic impact.* The department shall issue a regulatory analysis of a proposed rule that conforms to the requirements of 1998 Iowa Acts, chapter 1202, section 10(2a), after a proper request from:

a. The administrative rules coordinator; or

b. The administrative rules review committee.

3.6(5) *Qualified requesters for regulatory analysis—business impact.* The department shall issue a regulatory analysis of a proposed rule that conforms to the requirements of 1998 Iowa Acts, chapter 1202, section 10(2b), after a proper request from:

a. The administrative rules review committee;

b. The administrative rules coordinator;

c. At least 25 or more persons who sign the request provided that each represents a different small business; or

d. An organization representing at least 25 small businesses. That organization shall list the name, address and telephone number of not less than 25 small businesses it represents.

3.6(6) *Time period for analysis.* Upon receipt of a timely request for a regulatory analysis, the department shall adhere to the time lines described in 1998 Iowa Acts, chapter 1202, section 10(4).

3.6(7) *Contents of request.* A request for a regulatory analysis is made when it is mailed or delivered to the department. The request shall be in writing and satisfy the requirements of 1998 Iowa Acts, chapter 1202, section 10(1).

3.6(8) *Contents of concise summary.* The contents of the concise summary shall conform to the requirements of 1998 Iowa Acts, chapter 1202, section 10(4) and (5).

3.6(9) *Publication of a concise summary.* The department shall make available, to the maximum extent feasible, copies of the published summary in conformance with 1998 Iowa Acts, chapter 1202, section 10(5).

3.6(10) *Regulatory analysis contents—administrative rules review committee or administrative rules coordinator.* When a regulatory analysis is issued in response to a written request from the administrative rules review committee or the administrative rules coordinator, the regulatory analysis shall conform to the requirements of 1998 Iowa Acts, chapter 1202, section 10(2a), unless a written request expressly waives one or more of the items listed in the section.

3.6(11) *Regulatory analysis contents—substantial impact on small business.* When a regulatory analysis is issued in response to a written request from the administrative rules review committee, the administrative rules coordinator, at least 25 persons signing that request who each qualify as a small business or by an organization representing at least 25 small businesses, the regulatory analysis shall conform to the requirements of 1998 Iowa Acts, chapter 1202, section 10(2b).

111—3.7(17A,25B) Fiscal impact statement.

3.7(1) A proposed rule that mandates additional combined expenditures exceeding $100,000 by all affected political subdivisions or agencies and entities which contract with political subdivisions to provide services must be accompanied by a fiscal impact statement outlining the costs associated with the rule. A fiscal impact statement must satisfy the requirements of Iowa Code section 25B.6.

3.7(2) If the department determines at the time it adopts a rule that the fiscal impact statement upon which the rule is based contains errors, the department shall, at the same time, issue a corrected fiscal impact statement and publish the corrected fiscal impact statement in the Iowa Administrative Bulletin.

111—3.8(17A) Time and manner of rule adoption.

3.8(1) *Time of adoption.* The commission shall not adopt a rule until the period for making written submissions and oral presentations has expired. Within 180 days after the later of the publication of the Notice of Intended Action or the end of oral proceedings thereon, the commission shall adopt a rule pursuant to the rule-making proceeding or terminate the proceeding by publication of a notice to that effect in the Iowa Administrative Bulletin.

3.8(2) *Consideration of public comment.* Before the adoption of a rule, the commission shall consider fully all of the written submissions and oral submissions received in that rule-making proceeding, any memorandum summarizing such oral submissions, and any regulatory analysis or fiscal impact statement issued in that rule-making proceeding.

3.8(3) *Reliance on department expertise.* Except as otherwise provided by law, the commission may use its own experience, technical competence, specialized knowledge, and judgment in the adoption of a rule.

111—3.9(17A) Variance between adopted rule and published notice of proposed rule adoption.

3.9(1) The commission shall not adopt a rule that differs from the rule proposed in the Notice of Intended Action on which the rule is based unless:

a. The differences are within the scope of the subject matter announced in the Notice of Intended Action and are in character with the issues raised in that notice; and

b. The differences are a logical outgrowth of the contents of the Notice of Intended Action and the comments submitted in response thereto; and

c. The Notice of Intended Action provided fair warning that the outcome of the rule-making proceeding could be the rule in question.

3.9(2) In determining whether the Notice of IntendedAction provided fair warning that the outcome of the rule-making proceeding could be the rule in question, the department shall consider the following factors:

a. The extent to which persons who will be affected by the rule should have understood that the rule-making proceeding on which it is based could affect their interests.

b. The extent to which the subject matter of the rule or the issues determined by the rule are different from the subject matter or issues contained in the Notice of Intended Action.

c. The extent to which the effects of the rule differ from the effects of the proposed rule contained in the Notice of Intended Action.

3.9(3) The department shall commence a rule-making proceeding within 60 days of its receipt of a petition for rule making seeking the amendment or repeal of a rule that differs from the proposed rule contained in the Notice of Intended Action upon which the rule is based, unless the department finds that the differences between the adopted rule and the proposed rule are so insubstantial as to make the rule-making proceeding wholly unnecessary. A copy of any such finding and the petition to which it responds shall be sent to the petitioner, the administrative rules coordinator and the administrative rules review committee within three days of its issuance.

3.9(4) Concurrent rule-making proceedings. Nothing in this rule disturbs the discretion of the department to initiate, concurrently, several different rule-making proceedings on the same subject with several different published Notices of Intended Action.

111—3.10(17A) Exemptions from public rule-making procedures.

3.10(1) *Omission of notice and comment.* To the extent the commission, for good cause, finds that public notice and participation are unnecessary, impracticable, or contrary to the public interest in the process of adopting a particular rule, the commission may adopt that rule without publishing advance Notice of Intended Action in the Iowa Administrative Bulletin and without providing for written or oral public submissions prior to its adoption. The commission shall incorporate the required finding and a brief statement of its supporting reasons in each rule adopted in reliance upon this subrule.

3.10(2) *Categories exempt.* The following narrowly tailored categories of rules are exempted from the usual public notice and participation requirements because those requirements are unnecessary, impracticable, or contrary to the public interest with respect to each and every member of the defined class:

Rules which are mandated by federal law or regulation are exempted from the usual public notice and public participation requirements in any situation where the commission has no option but to adopt specified rules or where federal funding is contingent upon the adoption of the rules. Notice and public participation would be unnecessary since the provisions of the law or regulation must be adopted in order to maintain federal funding and the commission would have no option in the rule which was adopted.

3.10(3) *Public proceedings on rules adopted without them.* The department may, at any time, commence a standard rule-making proceeding for the adoption of a rule that is identical or similar to a rule adopted in reliance upon subrule 3.10(1). Upon written petition by a governmental subdivision, the administrative rules review committee, a department, the administrative rules coordinator, an association having not less than 25 members, or at least 25 persons, the department shall commence a standard rule-making proceeding for any rule specified in the petition that was adopted in reliance upon subrule 3.10(1). Such a petition must be filed within one year of the publication of the specified rule in the Iowa Administrative Bulletin as an adopted rule. The rule-making proceeding on that rule must be commenced within 60 days of the receipt of such a petition. After a standard rule-making proceeding is commenced pursuant to this subrule, the commission may either readopt the rule it adopted without benefit of all usual procedures on the basis of subrule 3.10(1), or may take any other lawful action, including the amendment or repeal of the rule in question, with whatever further proceedings are appropriate.

111—3.11(17A) Concise statement of reasons.

3.11(1) *General.* When requested by a person, either prior to adoption of a rule or within 30 days after its publication in the Iowa Administrative Bulletin as an adopted rule, the department shall issue a concise statement of reasons for the rule. Requests for such a statement must be in writing and must be delivered to the Administrative Rules Coordinator, Department for the Blind, 524 Fourth Street, Des Moines, Iowa 50309. The request should indicate whether the statement is sought for all or only a specified part of the rule. Requests will be considered made on the date received.

3.11(2) *Contents.* The concise statement of reasons shall contain:

a. The reasons for adopting the rule;

b. An indication of any change between the text of the proposed rule contained in the published Notice of Intended Action and the text of the rule as finally adopted, with the reasons for any such change;

c. The principal reasons urged in the rule-making proceeding for and against the rule, and the reasons for overruling the arguments made against the rule.

3.11(3) *Time of issuance.* After a proper request, the department shall issue a concise statement of reasons by the later of the time the rule is adopted or 35 days after receipt of the request.

111—3.12(17A) Contents, style, and form of rule.

3.12(1) *Contents.* Each rule adopted by the commission shall contain the text of the rule and, in addition:

a. The date the commission adopted the rule.

b. A brief explanation of the principal reasons for rule-making action if such reasons are required by 1998 Iowa Acts, chapter 1202, section 8, or the department in its discretion decides to include such reasons.

c. A reference to all rules repealed, amended, or suspended by the rule.

d. A reference to the specific statutory or other authority authorizing adoption of the rule.

e. Any findings required by any provision of law as a prerequisite to adoption or effectiveness of the rule.

f. A brief explanation of the principal reasons for the failure to provide for waivers to the rule if no waiver provision is included and a brief explanation of any waiver or special exceptions provided in the rule if such reasons are required by 1998 Iowa Acts, chapter 1202, section 8, or the department in its discretion decides to include such reasons.

g. The effective date of the rule.

3.12(2) *Incorporation by reference.* The department may incorporate by reference in a proposed or adopted rule, and without causing publication of the incorporated matter in full, all or any part of a code, standard, rule, or other matter if the department finds that the incorporation of its text in the proposed or adopted rule would be unduly cumbersome, expensive or otherwise inexpedient. The reference in the proposed or adopted rule shall fully and precisely identify the incorporated matter by location, title, citation, date, and edition, if any; shall briefly indicate the precise subject and the general contents of the incorporated matter; and shall state that the proposed or adopted rule does not include any later amendments or editions of the incorporated matter. The department may incorporate such matter by reference in a proposed or adopted rule only if the department makes copies of it readily available to the public. The rule shall state how and where copies of the incorporated matter may be obtained at cost from this department, and how and where copies may be obtained from an agency of the United States, this state, another state, or the organization, association or persons originally issuing the matter. The department shall retain permanently a copy of any materials incorporated by reference in a rule of the department.

If the department adopts standards by reference to another publication, it shall provide a copy of the publication containing the standards to the administrative rules coordinator for deposit in the state law library and may make the standards available electronically.

3.12(3) *References to materials not published in full.* When the administrative code editor decides to omit the full text of a proposed or adopted rule because publication of the full text would be unduly cumbersome, expensive or otherwise inexpedient, the department shall prepare and submit to the administrative code editor for inclusion in the Iowa Administrative Bulletin and Iowa Administrative Code a summary statement describing the specific subject matter of the omitted material. This summary statement shall include the title and a brief description sufficient to inform the public of the specific nature and subject matter of the proposed or adopted rules, and of significant issues involved in these rules. The summary statement shall also describe how a copy of the full text of the proposed or adopted rule, including any unpublished matter and any matter incorporated by reference, may be obtained from the department. The department will provide a copy of the full text (at actual cost) upon request and shall make copies of the full text available for review at the state law library and may make the standards available electronically.

At the request of the administrative code editor, the department shall provide a proposed statement explaining why publication of the full text would be unduly cumbersome, expensive or otherwise inexpedient.

To facilitate transcription into the alternative medium of braille, cassette tape or large-type format, the complete text of the proposed rule shall be published in the Notice of Intended Action whenever possible.

3.12(4) *Style and form.* In preparing its rules, the department shall follow the uniform numbering system, form, and style prescribed by the administrative rules coordinator.

111—3.13(17A) Department rule-making record.

3.13(1) *Requirement.* The department shall maintain an official rule-making record for each rule it proposes by publication in the Iowa Administrative Bulletin of a Notice of Intended Action, or adopts. The rule-making record and materials incorporated by reference must be available for public inspection.

3.13(2) *Contents.* The department rule-making record shall contain:

a. Copies of all publications in the Iowa Administrative Bulletin with respect to the rule or the proceeding upon which the rule is based and any file-stamped copies of department submissions to the administrative rules coordinator concerning that rule or the proceeding upon which it is based.

b. Copies of any portions of the department's public rule-making docket containing entries relating to the rule or the proceeding upon which the rule is based.

c. All written petitions, requests and submissions received by the department, and all other written materials of a factual nature as distinguished from opinion that are relevant to the merits of the rule and that were created or compiled by the department and considered by the director or the commission in formulation, proposal or adoption of the rule or the proceeding upon which the rule is based, except to the extent the department is authorized by law to keep them confidential; provided, however, that when any such materials are deleted because they are authorized by law to be kept confidential, the department shall identify in the record the particular materials deleted and state the reasons for that deletion.

d. Any official transcript of oral presentations made in the proceeding upon which the rule is based or, if not transcribed, the stenographic record or electronic recording of those presentations, and any memorandum prepared by the presiding officer summarizing the contents of those presentations.

e. A copy of any regulatory analysis or fiscal impact statement prepared for the proceeding upon which the rule is based.

f. A copy of the rule and any concise statement of reasons prepared for that rule.

g. All petitions for amendments of, or repeal or suspension of, the rule.

h. A copy of any objection to the issuance of that rule without public notice and participation that was filed pursuant to Iowa Code section 17A.4(2) by the administrative rules review committee, the governor, or the attorney general.

i. A copy of any objection to the rule filed by the administrative rules review committee, the governor, or the attorney general pursuant to Iowa Code section 17A.4(4), and any department response to that objection.

j. A copy of any significant written criticism of the rule, including a summary of any petitions for waiver of the rule.

k. A copy of any executive order concerning the rule.

3.13(3) *Effect of record.* Except as otherwise required by provision of law, the department rule-making record required by this rule need not constitute the exclusive basis for department action on the rule.

3.13(4) *Maintenance of record.* The department shall maintain the rule-making record for a period of not less than five years from the later of the date the rule to which it pertains became effective or the date of the Notice of Intended Action.

111—3.14(17A) Filing of rules. The department shall file each rule adopted by the commission in the office of the administrative rules coordinator. The filing must be executed as soon after adoption as is practicable. At the time of filing, each rule must have attached to it any fiscal impact statement and any concise statement of reasons that were issued with respect to that rule. If a fiscal impact statement or statement of reasons for that rule was not issued until a time subsequent to the filing of that rule, the note or statement must be attached to the filed rule within five working days after the note or statement is issued. In filing a rule, the department shall use the standard form prescribed by the administrative rules coordinator.

111—3.15(17A) Effectiveness of rules prior to publication.

3.15(1) *Grounds.* The commission may make a rule effective after its filing at any stated time prior to 35 days after its indexing and publication in the Iowa Administrative Bulletin if it finds that a statute so provides, the rule confers a benefit or removes a restriction on some segment of the public, or that the effective date of the rule is necessary to avoid imminent peril to the public health, safety, or welfare. The department shall incorporate the required findings and a brief statement of its supporting reasons in each rule adopted in reliance upon this subrule.

3.15(2) *Special notice.* When the commission makes a rule effective prior to its indexing and publication in reliance upon the provisions of Iowa Code section 17A.5(2)*"b"*(3), the department shall employ all reasonable efforts to make its contents known to the persons who may be affected by that rule prior to the rule's indexing and publication. The term "all reasonable efforts" requires the department to employ the most effective and prompt means of notice rationally calculated to inform potentially affected parties of the effectiveness of the rule that is justified and practical under the circumstances considering the various alternatives available for this purpose, the comparative costs to the department of utilizing each of those alternatives, and the harm suffered by affected persons from any lack of notice concerning the contents of the rule prior to its indexing and publication. The means that may be used for providing notice of rules prior to their indexing and publication include, but are not limited to, any one or more of the following means: radio, newspaper, television, signs, mail, telephone, personal notice or electronic means.

A rule made effective prior to its indexing and publication in reliance upon the provisions of Iowa Code section 17A.5(2)*"b"*(3) shall include in that rule a statement describing the reasonable efforts that will be used to comply with the requirements of subrule 3.15(2).

111—3.16(17A) General statements of policy.

3.16(1) *Compilation, indexing, public inspection.* The department shall maintain an official, current, and dated compilation that is indexed by subject, containing all of its general statements of policy within the scope of Iowa Code section 17A.2(10)*"a," "c," "f," "g," "h,"* and *"k."* Each addition to, change in, or deletion from the official compilation must also be dated, indexed, and a record thereof kept. Except for those portions containing rules governed by Iowa Code section 17A.2(10)*"f,"* or otherwise authorized by law to be kept confidential, the compilation must be made available for public inspection and copying.

3.16(2) *Enforcement of requirements.* A general statement of policy subject to the requirements of this rule shall not be relied on by the department to the detriment of any person who does not have actual, timely knowledge of the contents of the statement until the requirements of subrule 3.16(1) are satisfied. This provision is inapplicable to the extent necessary to avoid imminent peril to the public health, safety, or welfare.

111—3.17(17A) Review by department of rules.

3.17(1) Any interested person, association, department, or political subdivision may submit a written request to the administrative rules coordinator requesting the department to conduct a formal review of a specified rule. Upon approval of that request by the administrative rules coordinator, the department shall conduct a formal review of a specified rule to determine whether a new rule should be adopted instead or the rule should be amended or repealed. The department may refuse to conduct a review if it has conducted such a review of the specified rule within five years prior to the filing of the written request.

3.17(2) In conducting the formal review, the department shall prepare within a reasonable time a written report summarizing its findings, its supporting reasons, and any proposed course of action. The report must include a concise statement of the department's findings regarding the rule's effectiveness in achieving its objectives, including a summary of any available supporting data. The report shall also concisely describe significant written criticisms of the rule received during the previous five years, including a summary of any petitions for waiver of the rule received by the department or granted by the department. The report shall describe alternative solutions to resolve the criticisms of the rule, the reason any were rejected, and any changes made in the rule in response to the criticisms as well as the reasons for the changes. A copy of the department's report shall be sent to the administrative rules review committee and the administrative rules coordinator. The report must also be available for public inspection.

These rules are intended to implement Iowa Code chapter 17A as amended by 1998 Iowa Acts, chapter 1202, and Iowa Code section 25B.6.

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CHAPTER 5
DECLARATORY ORDERS

[Prior to 7/1/87, see Blind, Commission for[160] rule 3.2]
[Prior to 9/21/88, see Blind, Division for the[423] Ch 5]

111—5.1(17A) Petition for declaratory order. Any person may file a petition with the department for a declaratory order as to the applicability to specified circumstances of a statute, rule, or order within the primary jurisdiction of the department at the Administrative Office, Department for the Blind, 524 Fourth Street, Des Moines, Iowa 50309-2364. A petition is deemed filed when it is received by that office. The department shall provide the petitioner with a file-stamped copy of the petition if the petitioner provides the department an extra copy for this purpose. The petition must be typewritten or legibly handwritten in ink and must substantially conform to the following form:

BEFORE DEPARTMENT FOR THE BLIND

Petition by (Name of Petitioner) for a Declaratory Order on (Cite provisions of law involved).	PETITION FOR DECLARATORY ORDER

The petition must provide the following information:

1. A clear and concise statement of all relevant facts on which the order is requested.
2. A citation and the relevant language of the specific statutes, rules, policies, decisions, or orders whose applicability is questioned and any other relevant law.
3. The questions petitioner wants answered, stated clearly and concisely.
4. The answers to the questions desired by the petitioner and a summary of the reasons urged by the petitioner in support of those answers.
5. The reasons for requesting the declaratory order and disclosure of the petitioner's interest in the outcome.
6. A statement indicating whether the petitioner is currently a party to another proceeding involving the questions at issue and whether, to the petitioner's knowledge, those questions have been decided by, are pending determination by, or are under investigation by any governmental entity.
7. The names and addresses of other persons, or a description of any class of persons, known by petitioner to be affected by, or interested in, the questions presented in the petition.
8. Any request by petitioner for a meeting provided for by rule 111—5.7(17A).

The petition must be dated and signed by the petitioner or the petitioner's representative. It must also include the name, mailing address, and telephone number of the petitioner and petitioner's representative, and a statement indicating the person to whom communications concerning the petition should be directed.

111—5.2(17A) Notice of petition. Within ten working days of receipt of a petition for a declaratory order, the department shall give notice of the petition to all persons not served by the petitioner pursuant to rule 111—5.6(17A) to whom notice is required by any provision of law.

111—5.3(17A) Intervention.

5.3(1) *Nondiscretionary intervention.* Persons who qualify under any applicable provision of law as an intervenor and who file a petition for intervention within 15 working days of the filing of a petition for declaratory order and before the 30-day time period for department action under rule 111—5.8(17A) shall be allowed to intervene in a proceeding for a declaratory order.

5.3(2) *Discretionary intervention.* Any person who files a petition for intervention at any time prior to the issuance of an order may be allowed to intervene in a proceeding for a declaratory order at the discretion of the department.

5.3(3) *Filing and form of petition for intervention.* A petition for intervention shall be filed at the administrative office. A petition is deemed filed when it is received by that office. The department shall provide the petitioner with a file-stamped copy of the petition for intervention if the petitioner provides an extra copy for this purpose. A petition for intervention must be typewritten or legibly handwritten in ink and should substantially conform to the following form:

BEFORE DEPARTMENT FOR THE BLIND

Petition by (Name of Original Petitioner) for a Declaratory Order to (Cite provisions of law cited in original petition).	PETITION FOR INTERVENTION

The petition for intervention must provide the following information:

1. Facts supporting the intervenor's standing and qualifications for intervention.
2. The answers urged by the intervenor to the question or questions presented and a summary of the reasons urged in support of those answers.
3. Reasons for requesting intervention and disclosure of the intervenor's interest in the outcome.
4. A statement indicating whether the intervenor is currently a party to any proceeding involving the questions at issue and whether, to the intervenor's knowledge, those questions have been decided by, are pending determination by, or are under investigation by any governmental entity.
5. The names and addresses of any additional persons, or a description of any additional class of persons, known by the intervenor to be affected by, or interested in, the questions presented.
6. Whether the intervenor consents to be bound by the determination of the matters presented in the declaratory order proceeding.

The petition must be dated and signed by the intervenor or the intervenor's representative. It must also include the name, mailing address, and telephone number of the intervenor and intervenor's representative, and a statement indicating the person to whom communications should be directed.

111—5.4(17A) Briefs. The petitioner or any intervenor may file a brief in support of the position urged. The department may request a brief from the petitioner, any intervenor, or any other person concerning the questions raised.

111—5.5(17A) Inquiries. Inquiries concerning the status of a declaratory order proceeding may be made to the Director, Department for the Blind, 524 Fourth Street, Des Moines, Iowa 50309-2364.

111—5.6(17A) Service and filing of petitions and other papers.

5.6(1) *Service.* Except where otherwise provided by law, every petition for declaratory order, petition for intervention, brief, or other paper filed in a proceeding for a declaratory order shall be served by mailing or personal delivery upon each of the parties of record to the proceeding, and on all other persons identified as affected by or interested in the question presented, simultaneously with its filing. The party filing a document is responsible for service on all parties and other affected or interested persons. All documents filed shall indicate all parties or other persons served and the date and method of service.

5.6(2) *Filing.* All petitions for declaratory orders, petitions for intervention, briefs, or other papers in a proceeding for a declaratory order shall be filed with the Administrative Office, Department for the Blind, 524 Fourth Street, Des Moines, Iowa 50309-2364. All documents are considered filed upon receipt.

111—5.7(17A) Consideration. Upon request by the petitioner, the department must schedule a brief and informal meeting between the original petitioner, all intervenors, and a member of the staff of the department to discuss the questions raised. The department may solicit comments from any person on the questions raised. Also, comments on the questions raised may be submitted to the department by any person.

111—5.8(17A) Action on petition.

5.8(1) *Time frame for action.* Within 30 days after receipt of a petition for a declaratory order, the director or the director's designee shall take action on the petition as required by 1998 Iowa Acts, chapter 1202, section 13(5).

5.8(2) *Date of issuance of order.* The date of issuance of an order or of a refusal to issue an order is the date of mailing of the order or refusal or the date of delivery if service is by other means unless another date is specified in the order.

111—5.9(17A) Refusal to issue order.

5.9(1) *Reasons for refusal to issue order.* The department shall not issue a declaratory order where prohibited by 1998 Iowa Acts, chapter 1202, section 13(1), and may refuse to issue a declaratory order on some or all questions raised for the following reasons:

1. The petition does not substantially conform with the required form.
2. The petition does not contain facts sufficient to demonstrate that the petitioner will be aggrieved or adversely affected by the failure of the department to issue an order.
3. The department does not have jurisdiction over the questions presented in the petition.
4. The questions presented by the petition are also presented in a current rule making, contested case, or other department or judicial proceeding that may definitively resolve them.
5. The questions presented by the petition would more properly be resolved in a different type of proceeding or by another body with jurisdiction over the matter.
6. The facts or questions presented in the petition are unclear, overbroad, insufficient, or otherwise inappropriate as a basis upon which to issue an order.
7. There is no need to issue an order because the questions raised in the petition have been settled due to a change in circumstances.
8. The petition is not based upon facts calculated to aid in the planning of future conduct but is, instead, based solely upon prior conduct in an effort to establish the effect of that conduct or to challenge a department decision already made.
9. The petition requests a declaratory order that would necessarily determine the legal rights, duties, or responsibilities of other persons who have not joined in the petition, intervened separately, or filed a similar petition and whose position on the questions presented may fairly be presumed to be adverse to that of petitioner.
10. The petitioner requests the department to determine whether a statute is unconstitutional on its face.

5.9(2) *Action on refusal.* A refusal to issue a declaratory order must indicate the specific grounds for the refusal and constitutes final department action on the petition.

5.9(3) *Filing of new petition.* Refusal to issue a declaratory order pursuant to this provision does not preclude the filing of a new petition that seeks to eliminate the grounds for the department's refusal to issue an order.

111—5.10(17A) Contents of declaratory order—effective date. In addition to the order itself, a declaratory order must contain the date of its issuance, the name of petitioner and all intervenors, the specific statutes, rules, policies, decisions, or orders involved, the particular facts upon which it is based, and the reasons for its conclusion.

A declaratory order is effective on the date of issuance.

111—5.11(17A) Copies of orders. A copy of all orders issued in response to a petition for a declaratory order shall be mailed promptly to the original petitioner and all intervenors.

111—5.12(17A) Effect of a declaratory order. A declaratory order has the same status and binding effect as a final order issued in a contested case proceeding. It is binding on the department, the petitioner, and any intervenors who consent to be bound and is applicable only in circumstances where the relevant facts and the law involved are indistinguishable from those on which the order was based. As to all other persons, a declaratory order serves only as precedent and is not binding on the department. The issuance of a declaratory order constitutes final department action on the petition.

111—5.13(17A) Programs exempted. The vocational rehabilitation services and business enterprises programs are required by federal regulations to conform to similar proceedings delineated by their respective federal government grantor agencies. Therefore, the provisions of this chapter are not applicable to those programs.

These rules are intended to implement Iowa Code section 17A.9 as amended by 1998 Iowa Acts, chapter 1202, section 13.

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STATUS OF WOMEN DIVISION [435]

Created within the Human Rights Department [421] by Iowa Code section 601K.52
Prior to 7/15/87, See Status of Women [800]

CHAPTER 1
DESCRIPTION

435—1.1(216A) Composition. The commission on the status of women consists of nine voting members appointed by the governor subject to confirmation by the senate; and five members serving as ex officio nonvoting members: one to be appointed by the speaker of the house from the membership of the house, one to be appointed by the minority leader of the house from the membership of the house, one to be appointed by the majority leader of the senate from the membership of the senate, one to be appointed by the minority leader of the senate from the membership of the senate, and one to be the director of the department of human rights.

The chairperson is a commission member elected by the commission. The commission has an executive director who is the administrator of the division on the status of women, department of human rights.

435—1.2(216A) Meetings. The commission meets at least six times each year and, additionally, holds special meetings on the call of the chair. A majority of the membership constitutes a quorum.

435—1.3(216A) Purpose. The commission studies the changing needs and problems of women as wives, mothers, workers, and volunteers and develops and recommends new programs and constructive action to the governor and the general assembly. The commission has no enforcement powers. Each year the commission files a report of its proceedings with the governor and the general assembly.

These rules are intended to implement Iowa Code sections 216A.51 to 216A.60.

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CHAPTER 2
DUTIES

435—2.1(216A) Information. The commission gathers and distributes information through its office in the Lucas State Office Building, Des Moines, Iowa 50319.

435—2.2(216A) Authority. The administrator carries out the program and policies as determined by the commission. The commission holds hearings, enters into contracts, accepts grants, and seeks advice and counsel outside its membership in the performance of its duties which are to:

1. Serve as the central permanent agency for the development of services for women and act as a clearinghouse on present programs and agencies that operate to assist women.
2. Publish and disseminate information relating to women, develop educational programs, and conduct conferences.
3. Provide assistance to organized efforts by communities, organizations, associations, and other groups working toward the improvement of the status of women.
4. Assist governmental agencies in equalizing and expanding opportunities and rights of women and join in efforts of public and private agencies to study and resolve problems relating to the status of women.

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CHAPTER 3
IOWA WOMEN'S HALL OF FAME

435—3.1(216A) Purpose. The purpose of the Iowa Women's Hall of Fame shall be to recognize significant achievements of Iowa women and to educate the public by identifying those whose efforts have enhanced and improved the quality of life for women in Iowa.

435—3.2(216A) Committee. The Hall of Fame committee shall consist of the chairperson, two other commission members and two public members.

435—3.3(216A) Selections procedure. The committee shall solicit nominations for the Hall of Fame. The committee shall recommend to the commission for its approval those individuals to be inducted into the Hall of Fame. The committee shall plan the ceremony and reception each year for the Hall of Fame.

435—3.4(216A) Cristine Wilson Medal for Equality and Justice. The Cristine Wilson Medal for Equality and Justice shall recognize the efforts and accomplishments of the commission's first chairperson. The medal is awarded on an intermittent basis to persons whose work is deemed outstanding and a significant contribution to Iowa's recognition as a state characterized by equality and justice. The Hall of Fame committee shall seek nominations from the commission and make recommendations to the commission for persons to receive this award.

[Filed 6/26/87, Notice 4/8/87—published 7/15/87, effective 8/19/87]

CHAPTER 4
PUBLIC RECORDS AND FAIR INFORMATION PRACTICES

435—4.1(22) Adoption by reference. The commission adopts by reference 421—Chapter 2, Iowa Administrative Code.

435—4.2(22) Custodian of records. The custodian for the records maintained by this division is the division administrator.

These rules are intended to implement Iowa Code chapters 17A and 22 and section 216A.6.

[Filed emergency 8/19/88 after Notice 5/18/88—published 9/7/88, effective 8/19/88]

CHAPTER 5
IOWANS IN TRANSITION

435—5.1(216A) Definitions. *"Iowan in transition"* means an individual who meets the following criteria:

1. Has worked principally in the home providing unpaid household services for family members;
2. Is unemployed or underemployed;
3. Has had, or would apparently have, difficulty finding appropriate paid employment; and
4. Is or has been dependent on the income of another family member but is no longer supported by that income, is or has been dependent on government assistance, or is supported as the parent of a minor; or
5. Is a female offender, or a female who has a record of criminal offense.

435—5.2(216A) Program eligibility. In any year in which the legislature appropriates funds, the department of human rights division on the status of women shall provide moneys for certain selected programs to provide services to Iowans in transition. The amount of money provided shall be contingent upon the amount of funds available. Programs shall include the provision of intake, assessment, planning and personal counseling services. Only nonprofit organizations or governmental units are eligible.

435—5.3(216A) Proposals. Agencies wishing to apply for funding shall submit a funding proposal to the division. Proposals shall contain all the information specified in the request for proposals (RFP).

435—5.4(216A) Selection of proposals. The division administrator shall appoint an advisory committee of no fewer than five persons. All proposals received will be evaluated by the advisory committee and the division administrator to determine which agencies will receive grants. Agencies submitting applications for continuing programs which have demonstrated both a need and the ability to effectively operate the program will be given first consideration for funds. The division administrator shall make the final decision with respect to the expenditure of funds. The applicant may be requested to modify the proposal through the contracting process. The following factors will be considered in selecting proposals:

1. The demonstrated need for the service in the program area serviced;
2. The community support demonstrated and the relationship to existing agencies;
3. The emphasis of the plan on helping clients achieve economic self-sufficiency through education, training, and job placement in conjunction with other agencies;
4. The general program structure including, but not limited to, how well goals can be met, how realistic the objectives are, the administration of funds, stability of the organization, the overall quality in comparison to other proposals and the services offered; and
5. The plan for using the funds; funds may be used for salaries, fringe benefits, contract services, job-related travel, and operational expenses.

435—5.5(216A) Appeal procedure. The following appeal and hearing procedure shall be used:

1. An applicant denied assistance or who wishes to file a complaint about the Iowans in transition program has ten days from the date of denial or complaint action to submit an appeal in writing to the administrator of the division on the status of women.
2. The administrator and the advisory committee will respond with a decision within ten days of receipt of the appeal or complaint.

435—5.6(216A) Program reports. Grantees shall submit program performance reports to the division on the status of women as prescribed in the contract.

These rules are intended to implement Iowa Code section 216A.52.

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CHAPTER 6
MENTOR ADVISORY BOARD

Transferred to Workforce Development Department as 345—Chapter 15 in compliance with 1996 Iowa Acts, Senate File 2409, section 16, IAC Supplement 7/17/96, effective 7/1/96.

CHAPTER 40
STANDARDS FOR PROTECTION AGAINST RADIATION

WASTE DISPOSAL

40.70(136C) General requirements
40.71(136C) Method for obtaining approval of proposed disposal procedures
40.72(136C) Disposal by release into sanitary sewerage
40.73(136C) Treatment or disposal by incineration
40.74(136C) Disposal of specific wastes
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40.76(136C) Compliance with environmental and health protection regulations
40.77 to 40.79 Reserved

RECORDS

40.80(136C) General provisions
40.81(136C) Records of radiation protection programs
40.82(136C) Records of surveys
40.83(136C) Records of tests for leakage or contamination of sealed sources
40.84(136C) Records of prior occupational dose
40.85(136C) Records of planned special exposures
40.86(136C) Records of individual monitoring results
40.87(136C) Records of dose to individual members of the public
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40.96(136C) Notification of incidents
40.97(136C) Reports of exposures, radiation levels, and concentrations of radioactive material exceeding the constraints or limits
40.98(136C) Reports of planned special exposures
40.99 Reserved
40.100(136C) Reports of individual monitoring
40.101(136C) Notifications and reports to individuals
40.102(136C) Reports of leaking or contaminated sealed sources
40.103 and 40.104 Reserved

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NOTICES, INSTRUCTIONS, AND REPORTS TO WORKERS; INSPECTIONS

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SAFETY REQUIREMENTS FOR THE USE OF RADIATION MACHINES AND CERTAIN USES OF RADIOACTIVE MATERIALS

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MINIMUM CERTIFICATION STANDARDS FOR DIAGNOSTIC RADIOGRAPHERS, NUCLEAR MEDICINE TECHNOLOGISTS, AND RADIATION THERAPISTS

42.1(136C) Purpose and scope
42.2(136C) General requirements
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CHAPTER 43
MINIMUM REQUIREMENTS FOR RADON TESTING AND ANALYSIS

43.1(136B) Purpose and scope
43.2(136B) Definitions
43.3(136B) General provisions
43.4(136B) Application for certification
43.5(136B) Revocation of certification
43.6(136B) Reporting requirements
43.7(136B) Training and continuing education programs
43.8(136B) Exemptions
43.9(136B) Enforcement
43.10(136B) Penalties
43.11(136B) Persons exempted from certification

CHAPTER 44
MINIMUM REQUIREMENTS FOR RADON MITIGATION

44.1(136B) Purpose and scope
44.2(136B) Definitions
44.3(136B) General provisions
44.4(136B) Application for credentialing
44.5(136B) Revocation of credentialing
44.6(136B) Additional record-keeping requirements
44.7(136B) Continuing education
44.8(136B) Exemptions
44.9(136B) Enforcement
44.10(136B) Penalties

CHAPTER 45
RADIATION SAFETY REQUIREMENTS FOR INDUSTRIAL RADIOGRAPHIC OPERATIONS

45.1(136C) General requirements for industrial radiography operations
45.2(136C) Radiation safety requirements for the use of radiation machines in industrial radiography
45.3(136C) Radiation safety requirements for use of sealed sources of radiation in industrial radiography
45.4(136C) Radiation safety requirements for the use of particle accelerators for nonhuman use
45.5(136C) Radiation safety requirements for analytical X-ray equipment
45.6(136C) Radiation safety requirements for wireline service operations and subsurface tracer studies

CHAPTER 46
MINIMUM REQUIREMENTS FOR TANNING FACILITIES

46.1(136D) Purpose and scope
46.2(136D) Definitions
46.3(136D) Exemptions
46.4(136D) Permits and fees
46.5(136D) Construction and operation of tanning facilities
46.6(136D) Inspections, violations and injunctions

CHAPTERS 47 to 54
Reserved

CHAPTER 38
GENERAL PROVISIONS

641—38.1(136C) Purpose and scope.

38.1(1) Except as otherwise specifically provided, these rules apply to all persons who receive, possess, use, transfer, own, or acquire any source of radiation; provided, however, that nothing in these rules shall apply to any person to the extent such person is subject to regulation by the U.S. Nuclear Regulatory Commission. Attention is directed to the fact that regulation by the state of source material, by-product material, and special nuclear material in quantities not sufficient to form a critical mass is subject to the provisions of the agreement between the state and the U.S. Nuclear Regulatory Commission and to 10 CFR Part 150 of the Commission's regulations.

38.1(2) All references to Code of Federal Regulations (CFR) in this chapter are those in effect as of July 1, 1999.

38.1(3) The provisions of Chapter 38 are in addition to, and not in substitution for, any other applicable portions of 641—Chapters 39 to 45.

641—38.2(136C) Definitions. As used in these rules, these terms have the definitions set forth below and are adopted by reference and included herein for 641—Chapters 39 to 45.

"A_1" means the maximum activity of special form radioactive material permitted in a Type A package.

"A_2" means the maximum activity of radioactive material, other than special form radioactive material, permitted in a Type A package. These values are either listed in Appendix E of 641—Chapter 39, Table I, or may be derived in accordance with the procedure prescribed in Appendix E of 641—Chapter 39.

"Absorbed dose" means the energy imparted by ionizing radiation per unit mass of irradiated material. It is determined as the quotient of dE by dM, where dE is the mean energy imparted by ionizing radiation to matter of mass dM. The SI unit of absorbed dose is joule per kilogram and the special name of the unit of absorbed dose is the gray (Gy). The units of absorbed dose are the gray (Gy) and the rad.

"Absorbed dose rate" means absorbed dose per unit time, for machines with timers, or dose monitor unit per unit time for linear accelerators.

"Accelerator" means any machine capable of accelerating electrons, protons, deuterons, or other charged particles in a vacuum and of discharging the resultant particulate or other radiation into a medium at energies usually in excess of 1 MeV. For purposes of this definition, "particle accelerator" is an equivalent term.

"Accelerator-produced material" means any material made radioactive by a particle accelerator.

"Act" means 1984 Iowa Acts, chapter 1286, relating to regulation of radiation machines and radioactive materials. (Iowa Code chapter 136C)

"Activity" means the rate of disintegration or transformation or decay of radioactive material. The units of activity are the curie (Ci) and the becquerel (Bq).

"Adult" means an individual 18 years of age or older.

"Agency" means the Iowa department of public health.

"Agreement state" means any state with which the U.S. Nuclear Regulatory Commission or the U.S. Atomic Energy Commission has entered into an effective agreement under Subsection 274b of the Atomic Energy Act of 1954 as amended (73 Stat. 689).

"Airborne radioactive material" means any radioactive material dispersed in the air in the form of dusts, fumes, particles, mists, vapors, or gases.

"Airborne radioactivity area" means a room, enclosure, or area in which airborne radioactive material exists in concentrations (1) in excess of the derived air concentrations (DACs) specified in Appendix A of 641—Chapter 40; or (2) to such a degree that an individual present in the area without respiratory protective equipment could exceed, during the hours an individual is present in a week, an intake of 0.6 percent of the annual limit on intake (ALI) or 12 DAC-hours.

"Air kerma (K)" means the kinetic energy released in air by ionizing radiation. Kerma is determined as the quotient of dE by dM, where dE is the sum of the initial kinetic energies of all the charged ionizing particles liberated by uncharged ionizing particles in air of mass dM. The SI unit of air kerma is joule per kilogram and the special name for the unit of kerma is the gray (Gy).

"Annually" means at least once every 365 days.

"As low as is reasonably achievable" (ALARA) means making every reasonable effort to maintain exposures to radiation as far below the dose limits in these rules as is practical, consistent with the purpose for which the licensed or registered activity is undertaken, taking into account the state of technology, the economics of improvements in relation to state of technology, the economics of improvements in relation to benefits to the public health and safety, and other societal and socioeconomic considerations, and in relation to utilization of nuclear energy and licensed or registered sources of radiation in the public interest.

"Assembler" means any person engaged in the business of assembling, replacing, or installing one or more components into an X-ray system or subsystem. The term includes the owner of an X-ray system or the employee or agent who assembles components into an X-ray system that is subsequently used to provide professional or commercial services.

"Background radiation" means radiation from cosmic sources, naturally occurring radioactive materials, including radon, except as a decay product of source or special nuclear material, and including global fallout as it exists in the environment from the testing of nuclear explosive devices. "Background radiation" does not include sources of radiation from radioactive materials regulated by the agency.

"Beam monitoring system" means a system designed to detect and measure the radiation present in the useful beam.

"Becquerel" (Bq) means the SI unit of activity. One becquerel is equal to 1 disintegration or transformation per second (dps or tps).

"Bioassay" means the determination of kinds, quantities or concentrations and, in some cases, the locations of radioactive material in the human body, whether by direct measurement, in vivo counting, or by analysis and evaluation of materials excreted or removed from the human body. For purposes of these rules, "radiobioassay" is an equivalent term.

"Brachytherapy" means a method of radiation therapy in which sealed sources are utilized to deliver a radiation dose at a distance of up to a few centimeters, by surface, intracavitary, or interstitial application.

"By-product material" means (1) any radioactive material, except special nuclear material, yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special nuclear material, and (2) the tailings or wastes produced by the extraction or concentration of uranium or thorium from any ore processed primarily for its source material content, including discrete surface wastes resulting from uranium or thorium solution extraction processes. Underground ore bodies depleted by these solution extraction operations do not constitute "by-product material" within this definition.

"Cabinet radiography" means industrial radiography conducted in an enclosure or cabinet shielded so that radiation levels at every location on the exterior meet the limitations specified in 641—40.26(136C).

"Calendar quarter" means not less than 12 consecutive weeks nor more than 14 consecutive weeks. The first calendar quarter of each year shall begin in January and subsequent calendar quarters shall be so arranged such that no day is included in more than one calendar quarter and no day in any one year is omitted from inclusion within a calendar quarter. No licensee or registrant shall change the method of determining calendar quarters for purposes of these rules except at the beginning of a year.

"Calibration" means the determination of (1) the response or reading of an instrument relative to a series of known radiation values over the range of the instrument, or (2) the strength of a source of radiation relative to a standard.

"CFR" means Code of Federal Regulations.

"Changeable filters" means any filter, exclusive of inherent filtration, which can be removed from the useful beam through any electronic, mechanical, or physical process.

"Collective dose" means the sum of the individual doses received in a given period of time by a specified population from exposure to a specified source of radiation.

"Committed dose equivalent" ($H_{T,50}$) means the dose equivalent to organs or tissues of reference (T) that will be received from an intake of radioactive material by an individual during the 50-year period following the intake.

"Committed effective dose equivalent" ($H_{E,50}$) is the sum of the products of the weighting factors applicable to each of the body organs or tissues that are irradiated and the committed dose equivalent to each of these organs or tissues ($H_{E,50} = \Sigma w_T H_{T,50}$).

"Constraint" or *"Dose constraint"* means a value above which specified licensee actions are required.

"Curie" means a unit of quantity of radioactivity. One curie (Ci) is that quantity of radioactive material which decays at the rate of 3.7E+10 transformations per second (tps).

"Decay-in-storage" means the holding of radioactive material having half-lives of less than 65 days, except Cobalt-57, until it decays to background levels. Before disposal in ordinary trash, the material must have been held for a minimum of ten half-lives and its radioactivity is indistinguishable from background as indicated by a survey meter set on its most sensitive scale with no interposing shielding.

"Deep dose equivalent" (H_d), which applies to external whole body exposure, means the dose equivalent at a tissue depth of 1 centimeter (1000 mg/cm^2).

"Depleted uranium" means the source material uranium in which the isotope uranium-235 is less than 0.711 weight percent of the total uranium present. Depleted uranium does not include special nuclear material.

"Diagnostic clinical procedures manual" means a collection of written procedures that describes each method (and other instructions and precautions) by which the licensee performs diagnostic clinical procedures; where each diagnostic clinical procedure has been approved by the authorized user and includes the radiopharmaceutical, dosage, and route of administration.

"Diagnostic X-ray imaging system" means an assemblage of components for the generation, emission and reception of X-rays and the transformation, storage and visual display of the resultant X-ray image which are designed and used for irradiation of any part of the human body for the purpose of diagnosis or visualization.

"Dose" is a generic term that means absorbed dose, dose equivalent, effective dose equivalent, committed dose equivalent, committed effective dose equivalent, total organ dose equivalent, or total effective dose equivalent. For purposes of these rules, "radiation dose" is an equivalent term.

"Dose equivalent (H_T)" means the product of the absorbed dose in tissue, quality factor, and all other necessary modifying factors at the location of interest. The units of dose equivalent are the sievert (Sv) and rem.

"Dose limits" means the permissible upper bounds of radiation doses established in accordance with these rules. For purposes of these rules, "limits" is an equivalent term.

"Effective dose equivalent (H_E)" means the sum of the products of the dose equivalent to each organ or tissue (H_T) and the weighting factor (w_T) applicable to each of the body organs or tissues that are irradiated ($H_E = \Sigma w_T H_T$).

"Embryo/fetus" means the developing human organism from conception until the time of birth.

"Entrance or access point" means any opening through which an individual or extremity of an individual could gain access to radiation areas or to licensed or registered radioactive materials. This includes entry or exit portals of sufficient size to permit human entry, irrespective of their intended use.

"Exposure" means being exposed to ionizing radiation or to radioactive material.

"Exposure" means the quotient of dQ by dm where "dQ" is the absolute value of the total charge of the ions of one sign produced in air when all the electrons (negatrons and positrons) liberated by photons in a volume element of air having mass "dm" are completely stopped in air. (The special unit of exposure is the roentgen (R) (see 38.2(136C) for SI equivalent coulomb per kilogram). When not underlined as above or when indicated as 'exposure' or (X), the term "exposure" has a more general meaning in these rules.

"Exposure rate" means the exposure per unit of time, such as roentgen per minute and milliroentgen per hour.

"External dose" means that portion of the dose equivalent received from any source of radiation outside the body.

"Extremity" means hand, elbow, arm below the elbow, foot, knee, and leg below the knee.

"Eye dose equivalent" means the external dose equivalent to the lens of the eye at a tissue depth of 0.3 centimeter (300 mg/cm^2).

"Facility" means the location, building, vehicle, or complex under one administrative control, at which radioactive material is stored or used or at which one or more radiation machines are installed, located or used.

"Former U.S. Atomic Energy Commission (AEC) or U.S. Nuclear Regulatory Commission (NRC) licensed facilities" means nuclear reactors, nuclear fuel reprocessing plants, uranium enrichment plants, or critical mass experimental facilities where AEC or NRC licenses have been terminated.

"Generally applicable environmental radiation standards" means standards issued by the U.S. Environmental Protection Agency (EPA) under the authority of the Atomic Energy Act of 1954, as amended, that impose limits on radiation exposures or levels, or concentrations or quantities of radioactive material, in the general environment outside the boundaries of locations under the control of persons possessing or using radioactive material.

"Gray (Gy)" means the SI unit of absorbed dose, kerma, and specific energy imparted equal to 1 joule per kilogram. (1 Gy=100 rad).

"Half-value layer (HVL)" means the thickness of a specified material which attenuates X-radiation or gamma radiation to an extent such that the air kerma rate, exposure rate or absorbed dose rate is reduced to one-half of the value measured without the material at the same point.

"Hazardous waste" means those wastes designated as hazardous by U.S. Environmental Protection Agency regulations in 40 CFR Part 261.

"Healing arts" means the occupational fields of diagnosing or treating disease, providing health care and improving health by the practice of medicine, osteopathy, chiropractic, podiatry, dentistry, nursing, veterinary medicine, and supporting professions, such as physician assistants, nurse practitioners, radiologic technologists, and dental hygienists.

"High radiation area" means an area, accessible to individuals, in which radiation levels could result in an individual receiving a dose equivalent in excess of 1 mSv (0.1 rem) in 1 hour at 30 centimeters from any source of radiation or from any surface that the radiation penetrates.

"Human use" means the internal or external administration of radiation or radioactive material to human beings.

"Individual" means any human being.

"Individual monitoring" means the assessment of:

1. Dose equivalent by the use of individual monitoring devices or by the use of survey data; or
2. Committed effective dose equivalent by bioassay or by determination of the time-weighted air concentrations to which an individual has been exposed, that is, DAC-hours. See the definition of DAC-hours in 641—Chapter 40.

"Individual monitoring devices" means devices designed to be worn by a single individual for the assessment of dose equivalent. For purposes of these rules, "personnel dosimeter" and "dosimeter" are equivalent terms. Examples of individual monitoring devices are film badges, thermoluminescent dosimeters (TLDs), pocket ionization chambers, optically stimulated luminescent (OSL) devices, and personal air sampling devices.

"Industrial radiography" means a nondestructive testing method using ionizing radiation, such as gamma rays or X-rays, to make radiographic images.

"Inspection" means an official examination or observation including, but not limited to, tests, surveys, and monitoring to determine compliance with rules, regulations, orders, requirements, and conditions of the agency.

"Instrument traceability" means, for ionizing radiation measurements, the ability to show that an instrument has been calibrated at specified time intervals using a national standard or a transfer standard. If a transfer standard is used, the calibration must be from a laboratory accredited by a program which required continuing participation in measurement quality assurance with the National Institute of Standards and Technology or other equivalent national or international program.

"Interlock" means a device arranged or connected such that the occurrence of an event or condition is required before a second event or condition can occur or continue to occur.

"Internal dose" means that portion of the dose equivalent received from radioactive material taken into the body.

"Ionizing radiation." See "Radiation."

"Irradiation" means the exposure of matter to ionizing radiation.

"License" means a license issued by the agency in accordance with the rules adopted by the agency.

"Licensed (or registered) material" means radioactive material received, possessed, used, transferred or disposed of under a general or specific license (or registration) issued by the agency.

"Licensed practitioner" means a person licensed or otherwise authorized by law to practice medicine, osteopathy, chiropractic, podiatry, dentistry, or certification as a physician assistant as defined in Iowa Code section 148C.1, subsection 6, and is authorized to prescribe X-ray tests for the purpose of diagnosis or treatment.

"Licensee" means any person who is licensed by the agency in accordance with these rules and the Act.

"Licensing state" means any state with regulations equivalent to the suggested state regulations for control of radiation relating to, and an effective program for, the regulatory control of NARM and which has been granted final designation by the Conference of Radiation Control Program Directors, Inc.

"Limits." See "Dose limits."

"Lost or missing licensed (or registered) source of radiation" means licensed (or registered) source of radiation whose location is unknown. This definition includes licensed (or registered) material that has been shipped but has not reached its planned destination and whose location cannot be readily traced in the transportation system.

"Major processor" means a user processing, handling, or manufacturing radioactive material exceeding Type A quantities as unsealed sources or material, or exceeding four times Type B quantities as sealed sources, but does not include nuclear medicine programs, universities, industrial radiographers, or small industrial programs. Type A and B quantities are defined in 641—subrule 39.5(2).

"Medical use" means the intentional internal or external administration of radioactive material or the radiation therefrom to patients or human research subjects under the supervision of an authorized user.

"Member of the public" means any individual except when that individual is receiving an occupational dose.

"Minor" means an individual less than 18 years of age.

"Misadministration" means the administration of:

1. A radiopharmaceutical dosage greater than 30 microcuries of either sodium iodide I-125 or I-131:

Involving the wrong patient or human research subject, or wrong radiopharmaceutical; or

When both the administered dosage differs from the prescribed dosage by more than 20 percent of the prescribed dosage and the difference between the administered dosage and prescribed dosage exceeds 30 microcuries.

2. A therapeutic radiopharmaceutical dosage, other than sodium iodide I-125 or I-131:

Involving the wrong patient or human research subject, wrong radiopharmaceutical, or wrong route of administration; or

When the administered dosage differs from the prescribed dosage by more than 20 percent of the prescribed dosage.

3. A gamma stereotactic radiosurgery radiation dose:

Involving the wrong patient or human research subject, or wrong treatment site; or

When the calculated total administered dose differs from the total prescribed dose by more than 10 percent of the total prescribed dose.

4. Radiation doses received from teletherapy, linear accelerator therapy, deep X-ray machine therapy or superficial therapy; involving the wrong patient or human research subject, wrong mode of treatment or wrong treatment site;

When the treatment consists of three or fewer fractions or the calculated total administered dose differs from the total prescribed dose by more than 10 percent of the total prescribed dose;

When the calculated weekly administered dose is 30 percent greater than the weekly prescribed dose; or

When the calculated total administered dose differs from the total prescribed dose by more than 20 percent of the total prescribed dose.

TABLE II
MEAN QUALITY FACTORS, Q, AND FLUENCE PER UNIT DOSE EQUIVALENT FOR MONOENERGETIC NEUTRONS

	Neutron Energy (MeV)	Quality Factor[a] (Q)	Fluence per Unit Dose Equivalent[b] (neutrons cm^{-2} rem^{-1})	Fluence per Unit Dose Equivalent[b] (neutrons cm^{-2} Sv^{-1})
(thermal)	2.5E–8	2	980E+6	980E+8
	1E–7	2	980E+6	980E+8
	1E–6	2	810E+6	810E+8
	1E–5	2	810E+6	810E+8
	1E–4	2	840E+6	840E+8
	1E–3	2	980E+6	980E+8
	1E–2	2.5	1010E+6	1010E+8
	1E–1	7.5	170E+6	170E+8
	5E–1	11	39E+6	39E+8
	1	11	27E+6	27E+8
	2.5	9	29E+6	29E+8
	5	8	23E+6	23E+8
	7	7	24E+6	24E+8
	10	6.5	24E+6	24E+8
	14	7.5	17E+6	17E+8
	20	8	16E+6	16E+8
	40	7	14E+6	14E+8
	60	5.5	16E+6	16E+8
	1E+2	4	20E+6	20E+8
	2E+2	3.5	19E+6	19E+8
	3E+2	3.5	16E+6	16E+8
	4E+2	3.5	14E+6	14E+8

[a]Value of quality factor (Q) at the point where the dose equivalent is maximum in a 30-centimeter diameter cylinder tissue-equivalent phantom.
[b]Monoenergetic neutrons incident normally on a 30-centimeter diameter cylinder tissue-equivalent phantom.

38.4(5) *Units of activity.* Rescinded IAB 4/8/98, effective 7/1/98.

38.4(6) *Additional requirements.* The agency may, by rule, regulation, or order, impose upon any licensee or registrant such requirements in addition to those established in these rules as it deems appropriate or necessary to minimize danger to public health and safety or property.

641—38.5(136C) Administrative actions.

38.5(1) *Enforcement requirements.* Upon determination by the agency that Iowa Code chapter 136C or any rule adopted pursuant to that chapter has been or is being violated, the agency may implement the policies and procedures specified in Bureau of Radiological Health Enforcement Program (BRH-EP-1).

38.5(2) *Impounding.* Sources of radiation shall be subject to impoundment pursuant to the Bureau of Radiological Health Enforcement Program (BRH-EP-1).

641—38.6(136C) Prohibited uses. A hand-held fluoroscopic screen shall not be used with X-ray equipment unless it has been accepted for certification by the U.S. Food and Drug Administration, Center for Devices and Radiological Health. A shoe-fitting fluoroscopic device shall not be used.

641—38.7(136C) Communications.

38.7(1) All communications and reports concerning these rules, and applications filed thereunder, should be addressed to the agency at its office located at the Iowa Department of Public Health, Bureau of Radiological Health, Lucas State Office Building, Des Moines, Iowa 50319.

38.7(2) Drafts of proposed regulations released to the department from the federal government which constitute essential information needed by the department to ensure compliance with federal regulations are not available for public examination. Therefore, pursuant to Iowa Code section 22.9, the department waives the provision of Iowa Code section 22.2 as it applies to these proposed draft regulations.

641—38.8(136C) Fees.

38.8(1) *Radiation machines.*

a. Each registrant shall, at the time of registration and the anniversary date thereafter, as long as the registrant owns the radiation machine, remit to the agency a fee sufficient to defray the cost of registering the equipment with the department. All fees shall be paid annually in the form of a check or money order made payable to the Iowa Department of Public Health. The fees to be paid shall be in the amount computed by the following schedule:

ANNUAL FEE SCHEDULE

Type of X-ray machine	Fee per tube	Maximum fee
1. Medical	$51	$1500
2. Osteopathy	$51	$1500
3. Chiropractic	$51	$1500
4. Dentistry	$39	$1000
5. Podiatry	$39	$1000
6. Veterinary Medicine	$25	--
7. (Industrial/Nonmedical Use)	$50	--
8. Sterilization	$80	--
9. Accelerators	$100	--
10. Electron Microscope	$20	--

Fees for radiation machines not listed in the above schedule shall not be less than $50 per unit/tube.

b. Each registrant shall, where appropriate, pay the following special inspections/interpretation fee at the written request of the department:

(1) Mammography unit inspections fees:

- $850 for the first unit and, if the facility has additional units at the address of the first unit, a fee of $300 for each additional unit; or
- $850 per portable unit for each site where the unit is off-loaded and used and where the processing and patient films are stored; or
- Dollar amount to be determined and justified by the department on a case-by-case basis for facilities which do not meet the above criteria.

(2) Mammography interpretation fees of $100 per mammography examination provided to the department for the purpose of determining film diagnostic quality.

(3) Industrial and oncology accelerator registrants shall pay for each inspection a fee of $400 for the first and $100 for each additional unit.

(4) Industrial radiography X-ray units/walk-in cabinet radiography X-ray unit registrants shall pay for each inspection a fee of $250 for the first unit and $75 for each additional unit.

c. Each person who is engaged in the business of installing or offering to furnish radiation machines or is engaged in the business of furnishing or offering to furnish radiation machine servicing or service in the state shall apply for registration of such service with the agency prior to furnishing or offering to furnish any such service. Application shall be on a form provided by the department and include an annual nonrefundable fee of $100.

38.8(2) *Radioactive material licensing, inspection and registration fee.*

a. Licensing.

(1) Fees associated with licensing of the possession and use of radioactive materials in Iowa are identical to those specified in 10 CFR 170.31 entitled "Schedule of Fees for Materials Licenses and Other Regulatory Services."

(2) All required fees for new radioactive materials licenses, amendments to licenses, or renewal of licenses shall accompany the application for the requested action.

b. Inspections.

(1) After completion of an inspection, an inspection fee shall be assessed to a facility based on the fees for inspection found in 10 CFR 170.32 entitled "Schedule of Fees for Health and Safety, and Safeguards Inspections for Materials Licenses."

(2) All required fees for inspections conducted by the agency shall be paid within 30 days after receipt of the agency notification following the inspection.

c. Registration. Each person having generally licensed radioactive materials shall annually register with the department and pay a nonrefundable annual fee of $150.

38.8(3) *Industrial radiography testing and certification.*

a. A nonrefundable fee of $100 shall be submitted with each application for taking an industrial radiography examination to become certified by the agency.

b. A fee of $25 shall be submitted in order to replace lost identification cards issued to industrial radiographers by the agency pursuant to 641—subrule 45.11(3).

38.8(4) *Owner-assessed expenses.* In cases in which the agency determines that the cost of regulating or inspecting registered radiation machine facilities or radioactive materials licensees significantly exceeds the fees charged to the facility, it may assess an additional fee to the owner or user of the source(s) of radiation to cover the actual expenses incurred by the agency.

38.8(5) *Environmental surveillance fee.* A fee may be levied against any licensee for environmental surveillance activities which are necessary to access the radiological impact of activities conducted by the registrant or licensee. This fee shall be sufficient to defray actual costs incurred by the agency, including, but not limited to, salaries of agency employees, per diem, travel, and costs of laboratory analysis of samples, when required.

38.8(6) *Certification fees.* Diagnostic radiographers, radiation therapists, and nuclear medicine technologists, other than licensed practitioners of the healing arts, are required to pay fees sufficient to defray the cost of administering 641—Chapter 42. Fees are as follows:

a. Annual fee. Each individual must submit a $45 initial fee for the first year and $35 annually.

b. Examination fee.

(1) Each individual making application to take an examination given by the agency as a general diagnostic radiographer, or general radiation therapist as defined in 641—Chapter 42 must pay a nonrefundable fee of $25 each time the individual takes the examination required by 641—Chapter 42. Effective January 1, 2000, each individual must pay a nonrefundable fee of $80 each time the individual takes the examination.

(2) Each individual making application to take an examination given by the agency as a limited diagnostic radiographer, limited nuclear medicine technologist, or limited radiation therapist as defined in 641—Chapter 42 must pay a nonrefundable fee of $35 each time the individual takes the examination required by 641—Chapter 42. Effective January 1, 2001, each individual must pay a nonrefundable fee of $85 each time the individual takes the examination.

(3) Each individual making application to take an examination given by the agency as a general nuclear medicine technologist as defined in 641—Chapter 42 must pay a nonrefundable fee of either $80 or $145, depending upon the testing facility chosen, effective January 1, 2000.

c. Recertification fees. Once certification has been terminated for failure to complete continuing education requirements, any individual who requests permission to reestablish certification within six months of the initial continuing education due date must meet the training and testing requirements of 641—Chapter 42, submit proof of continuing education hours and shall submit a late fee of $30 in addition to the annual fee in order to obtain reinstatement of certification.

38.8(7) *Returned check and late fees.* Persons who fail to pay required fees to the agency are subject to the following penalties:

a. $15 for each payment received by the agency in accordance with these rules, for which insufficient funds are available to fulfill the obligation of such payment to the agency.

b. $25 for each month for failure to pay annual radiation machine registration or diagnostic radiation operator fee starting the first day of the month after the expiration of the facility's registration or operator's permit to practice. This fee is added to the unpaid annual fee.

38.8(8) *Reciprocity.* Fees paid for reciprocal recognition of out-of-state persons wishing to utilize radiation machines or radioactive materials in Iowa shall allow the out-of-state person to operate for a total of 180 days during the 365-day reciprocity period starting the date the fee is received by the agency.

a. Radiation machines. Any out-of-state person who wishes to bring an X-ray machine or linear accelerators into the state to perform work or services shall pay a reciprocity fee of $100 for each source of radiation pursuant to 38.8(7).

b. Radioactive materials. Out-of-state persons wishing to bring sources of radioactive material into Iowa for business purposes may be subject to a reciprocity fee depending on the type of activity to be performed and the type of radioactive materials license possessed (refer to 641—subrule 39.4(90)). If a reciprocity fee is applicable, it shall be assessed at the rate for reciprocity specified in 38.8(2) for each 365-day reciprocity period. In addition, if the agency performs an inspection of the out-of-state person's activities while in Iowa, the appropriate inspection fee as specified in 38.8(2) will be assessed.

c. Industrial radiographers wishing to operate in Iowa under an identification card from a jurisdiction recognized by Iowa that charges Iowa card holders a fee will be assessed and must pay a $100 fee prior to conducting industrial radiography in Iowa.

38.9(7) *Requests for action under this rule.*

a. Any person may file a request to institute a proceeding pursuant to 38.9(3) to modify, suspend, or revoke an authorization as may be proper. Such a request shall be addressed to the Chief, Bureau of Radiological Health, Iowa Department of Public Health, Lucas State Office Building, Des Moines, Iowa 50319. The requests shall specify the action requested and set forth the facts that constitute the basis for the request. The bureau chief will discuss the matter with staff to determine appropriate action in accordance with 38.9(7)*"b."*

b. Within a reasonable time after a request pursuant to 38.9(7)*"a"* has been received, the bureau chief shall either institute the requested proceeding in accordance with this rule or shall advise the person who made the request in writing that no proceeding will be instituted, in whole or in part, with respect to the request, and the reasons for the decision.

c.(1) The bureau chief's decisions under this rule will be filed and within 25 days after the date of the bureau chief's decision under this rule that no proceeding will be instituted or other action taken in whole or in part, the agency may on its own motion review that decision, in whole or in part, to determine if the bureau chief has abused discretion. This review power does not limit in any way either the agency's supervisory power over delegated staff actions or the agency's power to consult with the staff on a formal or informal basis regarding institution of proceedings under this rule.

(2) No petition or other request for agency review of a bureau chief's decision under this rule will be entertained by the agency.

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CHAPTER 39
REGISTRATION OF RADIATION MACHINE FACILITIES, LICENSURE OF RADIOACTIVE MATERIALS AND TRANSPORTATION OF RADIOACTIVE MATERIALS

641—39.1(136C) Purpose and scope.

39.1(1) All persons possessing radiation machines within the state shall be registered in accordance with this chapter, except as specifically exempted.

39.1(2) No person shall receive, possess, use, transfer, own, or acquire radioactive material except as authorized in a specific or general license issued pursuant to this chapter or as otherwise provided in these rules.

39.1(3) All references to any Code of Federal Regulations (CFR) in this chapter are those in effect as of July 1, 1999.

39.1(4) In addition to the requirements of this chapter, all registrants are subject to the requirements of 641—Chapters 38 and 40. Furthermore, registrants engaged in healing arts are subject to the requirements of 641—Chapters 41 and 42; registrants engaged in industrial/nonmedical radiographic operations are subject to the requirements of 641—Chapter 45.

641—39.2(136C) Definitions. For the purpose of this chapter, the definitions in 641—Chapter 38 may also apply to this chapter.

641—39.3(136C) Requirements for registration of X-ray and other electronic machines that produce radiation.

39.3(1) *Exemptions.*

a. Electronic equipment that produces radiation incidental to its operation for other purposes is exempt from the registration and notification requirements of this chapter, provided that the dose equivalent rate averaged over an area of 10 square centimeters does not exceed 0.5 millirem (5 μSv) per hour at 5 centimeters from any accessible surface of such equipment. The production, testing, or factory servicing of such equipment shall not be exempt.

b. Radiation machines while in transit or storage incident thereto are exempt from the requirements of this chapter.

c. Domestic television receivers are exempt from the requirements of this chapter.

39.3(2) *Application for registration of radiation machine facilities.* Each person having a radiation machine facility shall:

a. Apply for registration of such facility with the agency prior to the operation of a radiation machine facility. In order to register equipment, the person must have a permanent office located in Iowa that has a telephone, employee and equipment, and storage for records regarding the equipment and operator certification. Application for registration shall be completed on forms furnished by the agency and shall include the appropriate fee from 641—38.8(136C).

b. Designate on the application form an individual to be responsible for radiation protection.

c. Each registrant shall prohibit any person from furnishing radiation machine servicing or services as described in 39.3(3)*"d"* to the registrant's radiation machine facility until such person provides evidence that the person has been registered with the agency as a provider of services in accordance with 39.3(3).

39.3(3) *Application for registration of servicing and services.*

a. Each person who is engaged in the business of installing or offering to install radiation machines or is engaged in the business of furnishing or offering to furnish radiation machine servicing or services in this state shall apply for registration of such services with the agency prior to furnishing or offering to furnish any such services.

b. Application for registration shall be completed on forms furnished by the agency and shall contain all information required by the agency as indicated on the forms and accompanying instructions and include the fee required in 641—paragraph 38.8(1)*"c."*

c. Each person applying for registration under this chapter shall specify:

(1) That the person has read and understands the requirements of these rules;

(2) The services for which the person is applying for registration;

(3) The training and experience that qualify the person to discharge the services for which the person is applying for registration;

(4) The type of measurement instrument to be used, frequency of calibration, and source of calibration; and

(5) The type of personnel dosimeters supplied, frequency of reading, and replacement or exchange schedule.

d. For the purpose of 39.3(3), services may include but shall not be limited to:

(1) Installation and servicing of radiation machines and associated radiation machine components;

(2) Calibration of radiation machines or radiation measurement instruments or devices;

(3) Radiation protection or health physics consultations or surveys; and

(4) Personnel dosimetry services.

e. No individual shall perform services which are not specifically stated for that individual on the notice of registration issued by the agency.

39.3(4) *Issuance of notice of registration.*

a. Upon a determination that an applicant meets the requirements of this chapter, the agency shall issue a notice of registration.

And provided further, that the radiation dose rate from each electron tube containing radioactive material will not exceed 1 millirad (10 μGy) per hour at 1 centimeter from any surface when measured through 7 milligrams per square centimeter of absorber. For purposes of 39.4(3)"*c*"(1)"8," "electron tubes" include spark gap tubes, power tubes, gas tubes including glow lamps, receiving tubes, microwave tubes, indicator tubes, pick-up tubes, radiation detection tubes, and any other completely sealed tube that is designed to conduct or control electrical currents.

9. Ionizing radiation measuring or detection devices containing one or more sources of radioactive material, provided that:

- Each source contains no more than one exempt quantity set forth in Appendix B of this chapter;
- Each device contains no more than ten exempt quantities. For purposes of this requirement, a device's source(s) may contain either one or different types of radionuclides and an individual exempt quantity may be composed of fractional parts of one or more of the exempt quantities in Appendix B of this chapter, provided that the sum of such fractions shall not exceed unity; or
- For americium-241, 0.05 microcurie (1.85 kBq) is considered an exempt quantity under 39.4(3)"*c*"(1)"9."

10. Spark gap irradiators containing not more than 1 microcurie (37 kBq) of cobalt-60 per spark gap irradiator for use in electrically ignited fuel oil burners having a firing rate of at least 3 gallons (11.4 l) per hour.

(2) Self-luminous products containing radioactive material.

1. Tritium, krypton-85, or promethium-147. Except for persons who manufacture, process, or produce self-luminous products containing tritium, krypton-85, or promethium-147, any person is exempt from these rules to the extent that such person receives, possesses, uses, transfers, owns, or acquires tritium, krypton-85 or promethium-147 in self-luminous products manufactured, processed, produced, imported, or transferred in accordance with a specific license issued by the U.S. Nuclear Regulatory Commission pursuant to Section 32.22 of 10 CFR Part 32, which license authorizes the transfer of the product to persons who are exempt from regulatory requirements. The exemption in 39.4(3)"*c*"(2) does not apply to tritium, krypton-85, or promethium-147 used in products primarily for frivolous purposes or in toys or adornments.

2. Radium-226. Any person is exempt from these rules to the extent that such person receives, possesses, uses, transfers, or owns articles containing less than 0.1 microcurie (3.7 kBq) of radium-226 which were acquired prior to the effective date of these rules.

(3) Gas and aerosol detectors containing radioactive material.

1. Except for persons who manufacture, process, or produce gas and aerosol detectors containing radioactive material, any person is exempt from 641—Chapters 38, 39, 40, and 41 to the extent that such person receives, possesses, uses, transfers, owns, or acquires radioactive material in gas and aerosol detectors designed to protect life or property from fires and airborne hazards, provided that detectors containing radioactive material shall have been manufactured, imported, or transferred in accordance with a specific license issued by the U.S. Nuclear Regulatory Commission pursuant to Section 32.27 of 10 CFR Part 32; or a licensing state pursuant to 39.4(29)"*c,*" which authorizes the transfer of the detectors to persons who are exempt from regulatory requirements.

2. Gas and aerosol detectors previously manufactured and distributed to general licensees in accordance with a specific license issued by an agreement state shall be considered exempt under 39.4(3)"*c*"(3)"1," provided that the device is labeled in accordance with the specific license authorizing distribution of the generally licensed device, and provided further that they meet the requirements of 39.4(29)"*c.*"

3. Gas and aerosol detectors containing NARM previously manufactured and distributed in accordance with a specific license issued by a licensing state shall be considered exempt under 39.4(3)"*c*"(3)"1," provided that the device is labeled in accordance with the specific license authorizing distribution, and provided further that they meet the requirements of 39.4(29)"*c.*"

(4) Resins containing scandium-46 and designed for sand consolidation in oil wells. Any person is exempt from these rules to the extent that such person receives, possesses, uses, transfers, owns or acquires synthetic plastic resins containing scandium-46 which are designed for sand consolidation in oil wells. Such resins shall have been manufactured or imported in accordance with a specific license issued by the U.S. Nuclear Regulatory Commission, or shall have been manufactured in accordance with the specifications contained in a specific license issued by the agency or any agreement state to the manufacturer of such resins pursuant to licensing requirements equivalent to those in Sections 32.16 and 32.17 of 10 CFR Part 32 of the regulations of the U.S. Nuclear Regulatory Commission. This exemption does not authorize the manufacture of any resins containing scandium-46.

(5) Radioactive drug: capsules containing carbon-14 urea for "in vivo" diagnostic use for humans.

1. Except as provided in paragraphs "*b*" and "*c*" of this subrule, any person is exempt from the requirements for a license set forth in this chapter and in 641—41.2(136C) provided that such person receives, possesses, uses, transfers, owns, or acquires capsules containing 37 kBq 1 μCi carbon-14 urea (allowing for nominal variation that may occur during the manufacturing process) each, for "in vivo" diagnostic use for humans.

2. Any person who desires to use the capsules for research involving human subjects shall apply for and receive a specific license pursuant to 641—41.2(136C).

3. Any person who desires to manufacture, prepare, process, produce, package, repackage, or transfer for commercial distribution such capsules shall apply for and receive a specific license pursuant to 39.4(20) of this rule.

4. Nothing in this subrule relieves persons from complying with applicable FDA or other federal or state requirements governing receipt, administration, and use of drugs.

39.4(4) to **39.4(19)** Reserved.

39.4(20) *Types of licenses.* There are two types of licenses for radioactive materials: general and specific.

a. General licenses provided in this chapter are effective without the filing of applications with the agency or the issuance of licensing documents to the particular persons, although the filing of a certificate with the agency may be required by the particular general license. The general licensee is subject to all other applicable portions of these rules and any limitations of the general license.

b. Specific licenses require the submission of an application to the agency and the issuance of a licensing document by the agency. The licensee is subject to all applicable portions of these rules as well as any limitations specified in the licensing document.

c. The applicant must have a permanent office located in Iowa that has a telephone, employee and equipment, and storage for records regarding the equipment and operator certification.

d. All licensees and registrants must submit the appropriate fee in 641—subrule 38.8(2).

39.4(21) *General licenses—source material.*

a. A general license is hereby issued authorizing commercial and industrial firms, research, educational and medical institutions, and state and local government agencies to use and transfer not more than 15 pounds (6.82 kg) of source material at any one time for research, development, educational, commercial, or operational purposes. A person authorized to use or transfer source material, pursuant to this general license, may not receive more than a total of 150 pounds (68.2 kg) of source material in any one calendar year.

b. Persons who receive, possess, use, or transfer source material pursuant to the general license issued in 39.4(21)*"a"* are exempt from the provisions of 641—Chapter 40 to the extent that such receipt, possession, use, or transfer is within the terms of such general license; provided, however, that this exemption shall not be deemed to apply to any such person who is also in possession of source material under a specific license issued pursuant to this chapter.

c. Persons who receive, possess, use, or transfer source material pursuant to the general license in 39.4(21)*"a"* are prohibited from administering source material, or the radiation therefrom, either externally or internally, to human beings except as may be authorized by the agency in a specific license.

d. A general license is hereby issued authorizing the receipt of title to source material without regard to quantity. This general license does not authorize any person to receive, possess, use, or transfer source material.

(3) Any person who owns, receives, acquires, possesses, uses, or transfers radioactive material in a device pursuant to the general license in 39.4(22)*"d"*(1):

1. Shall ensure that all labels affixed to the device at the time of receipt, and bearing a statement that removal of the label is prohibited, are maintained thereon and shall comply with all instructions and precautions provided by such labels;

2. Shall ensure that the device is tested for leakage of radioactive material and proper operation of the "on-off" mechanism and indicator, if any, at no longer than six-month intervals or at such other intervals as are specified in the label; however, devices containing only krypton need not be tested for leakage of radioactive material, and devices containing only tritium or not more than 100 microcuries (3.7 MBq) of other beta/gamma-emitting material or 10 microcuries (0.37 MBq) of alpha-emitting material, and devices held in storage in the original shipping container prior to initial installation need not be tested for any purpose;

3. Shall ensure that other testing, installation, servicing, and removal from installation involving the radioactive material, its shielding or containment, are performed in accordance with the instructions provided by the labels, or by a person holding an applicable specific license from the agency, the U.S. Nuclear Regulatory Commission, an agreement state or a licensing state to perform such activities;

4. Shall maintain records showing compliance with the requirements of 39.4(22)*"d"*(3)"2" and "3." The records shall show the results of tests. The records also shall show the dates of performance of, and the names of persons performing, testing, installation, servicing, and removal from installation concerning the radioactive material, its shielding or containment. Records of tests for leakage of radioactive material required by 39.4(22)*"d"*(3)"2" shall be maintained for one year after the next required leak test is performed or until the sealed source is transferred or disposed of. Records of tests of the "on-off" mechanism and indicator required by 39.4(22)*"d"*(3)"2" shall be maintained for one year after the next required test of the "on-off" mechanism and indicator is performed or until the sealed source is transferred or disposed of. Records which are required by 39.4(22)*"d"*(3)"3" shall be maintained for a period of two years from the date of the recorded event or until the device is transferred or disposed of;

5. Upon the occurrence of a failure of or damage to, or any indication of a possible failure of or damage to, the shielding of the radioactive material or the "on-off" mechanism or indicator, or upon the detection of 0.005 microcurie (185 Bq) or more removable radioactive material, shall immediately suspend operation of the device until it has been repaired by the manufacturer or other person holding an applicable specific license from the agency, the U.S. Nuclear Regulatory Commission, an agreement state or a licensing state to repair such devices, or disposed of by transfer to a person authorized by an applicable specific license to receive the radioactive material contained in the device and, within 30 days, furnish to the agency a report containing a brief description of the event and the remedial action taken;

6. Shall not abandon the device containing radioactive material;

7. Except as provided in 39.4(22)*"d"*(3)"8," shall transfer or dispose of the device containing radioactive material only by transfer to a specific licensee of the agency, the U.S. Nuclear Regulatory Commission, an agreement state or a licensing state whose specific license authorizes the person to receive the device and, within 30 days after transfer of a device to a specific licensee, shall furnish to the agency a report containing identification of the device by manufacturer's name and model number and the name and address of the person receiving the device. No report is required if the device is transferred to the specific licensee in order to obtain a replacement device;

8. Shall transfer the device to another general licensee only:

• Where the device remains in use at a particular location. In such case the transferor shall give the transferee a copy of this regulation and any safety documents identified in the label on the device and, within 30 days of the transfer, report to the agency the manufacturer's name and model number of the device transferred, the name and address of the transferee, and the name and position of an individual who may constitute a point of contact between the agency and the transferee; or

• Where the device is held in storage in the original shipping container at its intended location of use prior to initial use by a general licensee; and

9. Shall comply with the provisions of 641—Chapter 40.

(4) The general license in 39.4(22)*"d"*(1) does not authorize the manufacture of devices containing radioactive material.

(5) The general license provided in 39.4(22)*"d"*(1) is subject to the provisions of 641—38.4(136C) to 641—38.5(136C), 39.4(32), 39.4(41), 39.4(51), and 641—39.5(136C).

e. Luminous safety devices for aircraft.

(1) A general license is hereby issued to own, receive, acquire, possess, and use tritium or promethium-147 contained in luminous safety devices for use in aircraft, provided:

1. Each device contains not more than 10 curies (370 GBq) of tritium or 300 millicuries (11.1 GBq) of promethium-147; and

2. Each device has been manufactured, assembled or imported in accordance with a specific license issued by the U.S. Nuclear Regulatory Commission, or each device has been manufactured or assembled in accordance with the specifications contained in a specific license issued by the agency or any agreement state to the manufacturer or assembler of such device pursuant to licensing requirements equivalent to those in Section 32.53 of 10 CFR Part 32.

(2) Persons who own, receive, acquire, possess, or use luminous safety devices pursuant to the general license in 39.4(22)*"e"*(1) are exempt from the requirements of 641—Chapter 40 except that they shall comply with the provisions of 641—40.95(136C) and 40.96(136C).

(3) This general license does not authorize the manufacture, assembly, or repair of luminous safety devices containing tritium or promethium-147.

(4) This general license does not authorize the ownership, receipt, acquisition, possession or use of promethium-147 contained in instrument dials.

(5) This general license is subject to the provisions of 641—38.4(136C) to 641—38.5(136C), 39.4(32), 39.4(41), 39.4(51), and 641—39.5(136C).

f. Ownership of radioactive material. A general license is hereby issued to own radioactive material without regard to quantity. Notwithstanding any other provisions of this chapter, this general license does not authorize the manufacture, production, transfer, receipt, possession or use of radioactive material.

g. Calibration and reference sources.

(1) A general license is hereby issued to those persons listed below to own, receive, acquire, possess, use, and transfer, in accordance with the provisions of 39.4(22)*"g"*(4) and (5), americium-241 in the form of calibration or reference sources:

1. Any person who holds a specific license issued by the agency which authorizes the person to receive, possess, use, and transfer radioactive material; and

2. Any person who holds a specific license issued by the U.S. Nuclear Regulatory Commission which authorizes the person to receive, possess, use, and transfer special nuclear material.

h. Except as provided in 39.4(33)*"i,"* licensees shall complete decommissioning of the site or separate building or outdoor area as soon as practicable but no later than 24 months following the initiation of decommissioning.

i. The agency may approve a request for an alternative schedule for completion of decommissioning of the site or separate building or outdoor area, and license termination if appropriate, if the agency determines that the alternative is warranted by consideration of the following:

(1) It is technically feasible to complete decommissioning within the allotted 24-month period;

(2) Sufficient waste disposal capacity is available to allow completion of decommissioning within the allotted 24-month period;

(3) A significant volume reduction exposure to workers can be achieved by allowing short-lived radionuclides to decay;

(4) A significant reduction in radiation exposure to workers can be achieved by allowing short-lived radionuclides to decay; and

(5) Other site-specific factors which the agency may consider appropriate on a case-by-case basis, such as the regulatory requirements of other government agencies, lawsuits, groundwater treatment activities, monitored natural groundwater restoration, actions that could result in more environmental harm than a deferred cleanup, and other factors beyond the controls of the licensee.

j. As the final step in decommissioning, the licensee shall:

(1) Certify the disposition of all licensed material, including accumulated wastes, by submitting a completed IDPH Form 588-2793 or equivalent information; and

(2) Conduct a radiation survey of the premises where the licensed activities were carried out and submit a report of the results of this survey unless the licensee demonstrates that the premises are suitable for release in some other manner. The licensee shall, as appropriate:

1. Report levels of gamma radiation in units of millisieverts (microroentgen) per hour at one meter from surfaces, and report the level of radioactivity, including alpha and beta, in units of disintegrations per minute or microcuries (megabecquerels) per 100 square centimeters (removable and fixed) for surfaces, microcuries (megabecquerels) per liter for water, and becquerels (picocuries) per gram for solids such as soils or concrete; and

2. Specify the survey instrument(s) used and certify that each instrument is properly calibrated and tested.

k. Specific licenses, including expired licenses, will be terminated by written notice to the licensee when the agency determines that:

(1) By-product material has been properly disposed;

(2) Reasonable effort has been made to eliminate residual radioactive contamination, if present; and

(3) A radiation survey has been performed which demonstrates that the premises are suitable for release in accordance with state of Iowa requirements; or other information submitted by the licensee is sufficient for release in accordance with state of Iowa requirements.

(4) Records required by 39.4(52)*"e"* and 39.4(52)*"g"* have been received.

l. Prior to license termination, each licensee authorized to possess radioactive material with a half-life greater than 120 days, in an unsealed form, shall forward the following records to the agency:

(1) Disposal of licensed material (including burials authorized before January 28, 1981), made under 641—40.71(136C) through 40.74(136C); and

(2) Records required by 641—paragraph 40.82(2)*"d."*

m. If licensed activities are transferred or assigned in accordance with 39.4(32)*"b,"* each licensee authorized to possess radioactive material with a half-life greater than 120 days, in an unsealed form, shall transfer the following records to the new licensee and the new licensee will be responsible for maintaining these records until the license is terminated:

(1) Records of disposal of licensed material (including burials authorized before January 28, 1981), made under 641—40.71(136C) through 40.74(136C); and

(2) Records required by 641—paragraph 40.82(2)*"d."*

n. Prior to license termination, each licensee shall forward the records required by 39.4(26)*"g"* to the agency.

39.4(34) *Renewal of licenses.*

a. Applications for renewal of specific licenses shall be filed in accordance with 39.4(24) and include the fees required in 641—subrule 38.8(2).

b. In any case in which a licensee, not less than 30 days prior to expiration of an existing license, has filed an application in proper form for renewal or for a new license authorizing the same activities, such existing license shall not expire until final action by the agency.

39.4(35) *Amendment of licenses at request of licensee.* Applications for amendment of a license shall be filed in accordance with 39.4(24), include the fees required in 641—subrule 38.8(2), and shall specify the respects in which the licensee desires the license to be amended and the grounds for such amendment.

39.4(36) *Agency action on applications to renew or amend.* In considering an application by a licensee to renew or amend the license, the agency will apply the criteria set forth in 39.4(25), 39.4(27), 39.4(28), and 39.4(29) and in 641—Chapters 38, 40, 41, 42, 43, 44 and 45, as applicable.

39.4(37) *Persons possessing a license for source, by-product, or special nuclear material in quantities not sufficient to form a critical mass on effective date of these rules.* Any person who, on the effective date of these rules, possesses a general or specific license issued by the U.S. Nuclear Regulatory Commission for source, by-product, or special nuclear material in quantities not sufficient to form a critical mass, shall be deemed to possess a like license issued under this chapter and the Iowa Code, such license to expire either 90 days after receipt from the agency of a notice of expiration of such license, or on the date or expiration specified in the U.S. Nuclear Regulatory Commission license, whichever is earlier.

39.4(38) *Persons possessing naturally occurring and accelerator-produced radioactive material on effective date of these rules.* Any person who, on the effective date of these rules, possesses NARM for which a specific license is required by the Iowa Code or this chapter shall be deemed to possess such a license issued under the Iowa Code and this chapter. Such license shall expire 90 days after the effective date of these rules; provided, however, that if within the 90 days the person possessing such material files an application in proper form for a license, such existing license shall not expire until the application has been finally determined by the agency.

39.4(39) and **39.4(40)** Reserved.

39.4(41) *Transfer of material.*

a. No licensee shall transfer radioactive material except as authorized pursuant to 39.4(41).

b. Except as otherwise provided in the license and subject to the provisions of 39.4(41)*"c"* and *"d,"* any licensee may transfer radioactive material:

(1) To the agency (a licensee may transfer material to the agency only after receiving prior approval from the agency);

(2) To the U.S. Department of Energy;

(3) To any person exempt from these rules to the extent permitted under such exemption;

(4) To any person authorized to receive such material under terms of a general license or its equivalent, or a specific license or equivalent licensing document, issued by the agency, the U.S. Nuclear Regulatory Commission, any agreement state or any licensing state, or to any person otherwise authorized to receive such material by the federal government or any agency thereof, the agency, an agreement state, or a licensing state; or

(5) As otherwise authorized by the agency in writing.

Radioactive Material	Release Fraction	Quantity (curies)
Neptunium-237	.001	2
Nickel-63	.01	20,000
Niobium-94	.01	300
Phosphorus-32	.5	100
Phosphorus-33	.5	1,000
Polonium-210	.01	10
Potassium-42	.01	9,000
Promethium-145	.01	4,000
Promethium-147	.01	4,000
Ruthenium-106	.01	200
Samarium-151	.01	4,000
Scandium-46	.01	3,000
Selenium-75	.01	10,000
Silver-110m	.01	1,000
Sodium-22	.01	9,000
Sodium-24	.01	10,000
Strontium-89	.01	3,000
Strontium-90	.01	90
Sulfur-35	.5	900
Technetium-99	.01	10,000
Technetium-99m	.01	400,000
Tellurium-127m	.01	5,000
Tellurium-129m	.01	5,000
Terbium-160	.01	4,000
Thulium-170	.01	4,000
Tin-113	.01	10,000
Tin-123	.01	3,000
Tin-126	.01	1,000
Titanium-44	.01	100
Vanadium-48	.01	7,000
Xenon-133	1.0	900,000
Yttrium-91	.01	2,000
Zinc-65	.01	5,000
Zirconium-93	.01	400
Zirconium-95	.01	5,000
Any other beta-gamma emitter	.01	10,000
Mixed fission products	.01	1,000
Mixed corrosion products	.01	10,000
Contaminated equipment beta-gamma	.001	10,000
Irradiated material, any form other than solid noncombustible	.01	1,000
Irradiated material, solid noncombustible	.001	10,000

Radioactive Material	Release Fraction	Quantity (curies)
Mixed radioactive waste, beta-gamma	.01	1,000
Packaged mixed waste, beta-gamma[2]	.001	10,000
Any other alpha emitter	.001	2
Contaminated equipment, alpha	.0001	20
Packaged waste, alpha[2]	.0001	20
Combinations of radioactive materials listed above[1]	------	------

[1] For combinations of radioactive materials, consideration of the need for an emergency plan is required if the sum of the ratios of the quantity of each radioactive material authorized to the quantity listed for that material in Appendix G exceeds one.

[2] Waste packaged in Type B containers does not require an emergency plan.

These rules are intended to implement Iowa Code chapter 136C.

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CHAPTER 40
STANDARDS FOR PROTECTION AGAINST RADIATION

GENERAL PROVISIONS

641—40.1(136C) Purpose and scope.

40.1(1) This chapter establishes standards for protection against ionizing radiation resulting from activities conducted pursuant to licenses or registrations issued by the Agency. These rules are issued pursuant to the authority in Iowa Code section 136C.3 and 136C.4.

40.1(2) The requirements of this chapter are designed to control the receipt, possession, use, transfer, and disposal of sources of radiation by any licensee or registrant so the total dose to an individual, including doses resulting from all sources of radiation other than background radiation, does not exceed the standards for protection against radiation prescribed in this chapter. However, nothing in this chapter shall be construed as limiting actions that may be necessary to protect health and safety.

40.1(3) In addition to complying with the requirements set forth in this chapter, every reasonable effort should be made to maintain radiation exposures and releases of radioactive material in effluents to unrestricted areas as low as is reasonably achievable (ALARA). The term "as low as is reasonably achievable" means as low as is reasonably achievable taking into account the state of technology and the economics of improvements in relation to benefits to the public health and safety, other societal and socioeconomic considerations, and in relation to the utilization of ionizing radiation in the public interest.

40.1(4) Except as specifically provided in other parts of these rules, this chapter applies to persons licensed or registered by the Agency to receive, possess, use, transfer, or dispose of sources of radiation. The limits in this chapter do not apply to doses due to background radiation, to exposure of patients to radiation for the purpose of medical diagnosis or therapy, or to voluntary participation in medical research programs.

40.1(5) All references to Code of Federal Regulations (CFR) in this chapter are those in effect on or before July 1, 1999.

40.1(6) The provisions of Chapter 40 are in addition to, and not in substitution for, any other applicable portions of 641—Chapters 38 to 45.

641—40.2(136C) Definitions.

40.2(1) For the purposes of this chapter, the definitions of 641—Chapter 38 may also apply.

40.2(2) As used in this chapter, these terms have the definitions set forth below.

"Annual limit on intake" (ALI) means the derived limit for the amount of radioactive material taken into the body of an adult worker by inhalation or ingestion in a year. ALI is the smaller value of intake of a given radionuclide in a year by the reference person that would result in a committed effective dose equivalent of 5 rem (0.05 Sv) or a committed dose equivalent of 50 rem (0.5 Sv) to any individual organ or tissue. ALI values for intake by ingestion and by inhalation of selected radionuclides are given in Table I, Columns 1 and 2, of Appendix B.

"Class" means a classification scheme for inhaled material according to its rate of clearance from the pulmonary region of the lung. Materials are classified as D, W, or Y, which applies to a range of clearance half-times: for Class D, Days, of less than 10 days, for Class W, Weeks, from 10 to 100 days, and for Class Y, Years, of greater than 100 days. For purposes of these rules, "lung class" and "inhalation class" are equivalent terms.

"Declared pregnant woman" means a woman who has voluntarily informed her employer, in writing, of her pregnancy and the estimated date of conception.

"Derived air concentration" (DAC) means the concentration of a given radionuclide in air which, if breathed by the reference person for a working year of 2,000 hours under conditions of light work, results in an intake of one ALI. For purposes of these rules, the condition of light work is an inhalation rate of 1.2 cubic meters of air per hour for 2,000 hours in a year. DAC values are given in Table I, Column 3, of Appendix B.

"Derived air concentration-hour" (DAC-hour) means the product of the concentration of radioactive material in air, expressed as a fraction or multiple of the derived air concentration for each radionuclide, and the time of exposure to that radionuclide, in hours. A licensee or registrant may take 2,000 DAC-hours to represent one ALI, equivalent to a committed dose equivalent of 5 rem (0.05 Sv).

"Dosimetry processor" means an individual or an organization that processes and evaluates individual monitoring devices in order to determine the radiation dose delivered to the monitoring devices.

"Inhalation class" (see "Class.")

"Lung class" (see "Class.")

"Nonstochastic effect" means a health effect, the severity of which varies with the dose and for which a threshold is believed to exist. Radiation-induced cataract formation is an example of a nonstochastic effect. For purposes of these rules, "deterministic effect" is an equivalent term.

"Planned special exposure" means an infrequent exposure to radiation, separate from and in addition to the annual occupational dose limits.

"Quarter" means a period of time equal to one-fourth of the year observed by the licensee, approximately 13 consecutive weeks, providing that the beginning of the first quarter in a year coincides with the starting date of the year and that no day is omitted or duplicated in consecutive quarters.

"Reference person" means a hypothetical aggregation of human physical and physiological characteristics determined by international consensus. These characteristics may be used by researchers and public health workers to standardize results of experiments and to relate biological insult to a common base. A description of the reference person is contained in the International Commission on Radiological Protection report, ICRP Publication 23, "Report of the Task Group on Reference Man."

"Respiratory protective equipment" means an apparatus, such as a respirator, used to reduce an individual's intake of airborne radioactive materials.

"Sanitary sewerage" means a system of public sewers for carrying off wastewater and refuse, but excluding sewage treatment facilities, septic tanks, and leach fields owned or operated by the licensee or registrant.

"Stochastic effect" means a health effect that occurs randomly and for which the probability of the effect occurring, rather than its severity, is assumed to be a linear function of dose without threshold. Hereditary effects and cancer incidence are examples of stochastic effects. For purposes of these rules, "probabilistic effect" is an equivalent term.

"Very high radiation area" means an area, accessible to individuals, in which radiation levels could result in an individual receiving an absorbed dose in excess of 500 rad (5 Gy) in 1 hour at 1 meter from a source of radiation or from any surface that the radiation penetrates.

"Weighting factor" w_T for an organ or tissue (T) means the proportion of the risk of stochastic effects resulting from irradiation of that organ or tissue to the total risk of stochastic effects when the whole body is irradiated uniformly. For calculating the effective dose equivalent, the values of w_T are:

ORGAN DOSE WEIGHTING FACTORS

Organ or Tissue	w_T
Gonads	0.25
Breast	0.15
Red bone marrow	0.12
Lung	0.12
Thyroid	0.03
Bone surfaces	0.03
Remainder	0.30[a]
Whole Body	1.00[b]

[a] 0.30 results from 0.06 for each of 5 "remainder" organs, excluding the skin and the lens of the eye, that receive the highest doses.
[b] For the purpose of weighting the external whole body dose, for adding it to the internal dose, a single weighting factor, $w_T = 1.0$, has been specified. The use of other weighting factors for external exposure will be approved on a case-by-case basis until such time as specific guidance is issued.

641—40.3(136C) Implementation.

40.3(1) Any existing license or registration condition that is more restrictive than this chapter remains in force until there is an amendment or renewal of the license or registration.

40.3(2) If a license or registration condition exempts a licensee or registrant from a provision of this chapter in effect on or before January 1, 1994, it also exempts the licensee or registrant from the corresponding provision of this chapter.

40.3(3) If a license or registration condition cites provisions of this chapter in effect prior to January 1, 1994, which do not correspond to any provisions of this chapter, the license or registration condition remains in force until there is an amendment or renewal of the license or registration that modifies or removes this condition.

641—40.4 to **40.9** Reserved.

RADIATION PROTECTION PROGRAMS

641—40.10(136C) Radiation protection programs.

40.10(1) Each licensee or registrant shall develop, document, and implement a radiation protection program sufficient to ensure compliance with the provisions of this chapter. See 40.81(136C) for record-keeping requirements relating to these programs.

40.10(2) The licensee or registrant shall use, to the extent practicable, procedures and engineering controls based upon sound radiation protection principles to achieve occupational doses and public doses that are as low as is reasonably achievable (ALARA).

40.10(3) The licensee or registrant shall, at intervals not to exceed 12 months, review the radiation protection program content and implementation.

40.10(4) To implement the ALARA requirements of 40.10(2), and notwithstanding the requirements in 641—40.26(136C), a constraint on air emissions of radioactive material to the environment, excluding radon-222 and its daughters, shall be established by licensees such that the individual member of the public likely to receive the highest dose will not be expected to receive a total effective dose equivalent in excess of 10 mrem (0.1 mSv) per year from these emissions. If a licensee subject to this requirement exceeds this dose constraint, the licensee shall report the exceedance as provided in 641—40.97(136C) and promptly take appropriate corrective action to ensure against recurrence.

641—40.11 to **40.14** Reserved.

OCCUPATIONAL DOSE LIMITS

641—40.15(136C) Occupational dose limits for adults.

40.15(1) The licensee or registrant shall control the occupational dose to individual adults, except for planned special exposures pursuant to 40.20(136C), to the following dose limits:

a. An annual limit, which is the more limiting of:

(1) The total effective dose equivalent being equal to 5 rem (0.05 Sv); or

(2) The sum of the deep dose equivalent and the committed dose equivalent to any individual organ or tissue other than the lens of the eye being equal to 50 rem (0.5 Sv).

b. The annual limits to the lens of the eye, to the skin, and to the extremities which are:

(1) An eye dose equivalent of 15 rem (0.15 Sv), and

(2) A shallow dose equivalent of 50 rem (0.5 Sv) to the skin or to any extremity.

40.15(2) Doses received in excess of the annual limits, including doses received during accidents, emergencies, and planned special exposures, shall be subtracted from the limits for planned special exposures that the individual may receive during the current year and during the individual's lifetime. See 40.20(5)*"a"* and *"b."*

40.15(3) The assigned deep dose equivalent and shallow dose equivalent shall be for the portion of the body receiving the highest exposure determined as follows:

The deep dose equivalent, eye dose equivalent and shallow dose equivalent may be assessed from surveys or other radiation measurements for the purpose of demonstrating compliance with the occupational dose limits, if the individual monitoring device was not in the region of highest potential exposure, or the results of individual monitoring are unavailable.

40.15(4) Derived air concentration (DAC) and annual limit on intake (ALI) values are presented in Table I of Appendix B and may be used to determine the individual's dose and to demonstrate compliance with the occupational dose limits. See 40.86(136C).

40.15(5) Notwithstanding the annual dose limits, the licensee shall limit the soluble uranium intake by an individual to 10 milligrams in a week in consideration of chemical toxicity. See footnote 3 of Appendix B.

40.15(6) The licensee or registrant shall reduce the dose that an individual may be allowed to receive in the current year by the amount of occupational dose received while employed by any other person. See 40.19(5).

641—40.16(136C) Compliance with requirements for summation of external and internal doses.

40.16(1) If the licensee or registrant is required to monitor pursuant to both 40.19(1) and 40.19(2), the licensee or registrant shall demonstrate compliance with the dose limits by summing external and internal doses. If the licensee or registrant is required to monitor only pursuant to 40.19(1), or only pursuant to 40.19(2), then summation is not required to demonstrate compliance with the dose limits. The licensee or registrant may demonstrate compliance with the requirements for summation of external and internal doses pursuant to 40.16(2), 40.16(3) and 40.16(4). The dose equivalents for the lens of the eye, the skin, and the extremities are not included in the summation, but are subject to separate limits.

40.16(2) Intake by inhalation. If the only intake of radionuclides is by inhalation, the total effective dose equivalent limit is not exceeded if the sum of the deep dose equivalent divided by the total effective dose equivalent limit, and one of the following, does not exceed unity:

a. The sum of the fractions of the inhalation ALI for each radionuclide, or

b. The total number of derived air concentration-hours (DAC-hours) for all radionuclides divided by 2,000, or

RADIATION DOSE LIMITS FOR INDIVIDUAL MEMBERS OF THE PUBLIC

641—40.26(136C) Dose limits for individual members of the public.

40.26(1) Each licensee or registrant shall conduct operations so that:

a. The total effective dose equivalent to individual members of the public from the licensed or registered operation does not exceed 0.1 rem (1 millisievert) in a year, exclusive of the dose contributions from background radiation, from any medical administration the individual has received, from exposure to individuals administered radioactive material and released in accordance with 641—subrule 41.2(27), from voluntary participation in medical research programs, and from the licensee's or registrant's disposal of radioactive material into sanitary sewerage in accordance with 641—40.72(136C); and

b. The dose in any unrestricted area from external sources, exclusive of the dose contributions from patients administered radioactive material and released in accordance with 641—subrule 41.2(27), does not exceed 0.002 rem (0.02 millisievert) in any one hour.

40.26(2) If the licensee or registrant permits members of the public to have access to restricted areas, the limits for members of the public continue to apply to those individuals.

40.26(3) A licensee, registrant, or an applicant for a license or registration may apply for prior Agency authorization to operate up to an annual dose limit for an individual member of the public of 0.5 rem (5 mSv). This application shall include the following information:

a. Demonstration of the need for and the expected duration of operations in excess of the limit in 40.13(1); and

b. The licensee's or registrant's program to assess and control dose within the 0.5 rem (5 mSv) annual limit; and

c. The procedures to be followed to maintain the dose ALARA.

40.26(4) In addition to the requirements of this chapter, a licensee or registrant subject to the provisions of the U.S. Environmental Protection Agency's generally applicable environmental radiation standards in 40 CFR 190 shall comply with those standards.

40.26(5) The Agency may impose additional restrictions on radiation levels in unrestricted areas and on the total quantity of radionuclides that a licensee or registrant may release in effluents in order to restrict the collective dose.

641—40.27(136C) Compliance with dose limits for individual members of the public.

40.27(1) The licensee or registrant shall make or cause to be made, as appropriate, surveys of radiation levels in unrestricted areas and radioactive materials in effluents released to unrestricted areas to demonstrate compliance with the dose limits for individual members of the public in 40.26(136C).

40.27(2) A licensee or registrant shall show compliance with the annual dose limit in 40.26(136C) by:

a. Demonstrating by measurement or calculation that the total effective dose equivalent to the individual likely to receive the highest dose from the licensed or registered operation does not exceed the annual dose limit; or

b. Demonstrating that:

(1) The annual average concentrations of radioactive material released in gaseous and liquid effluents at the boundary of the unrestricted area do not exceed the values specified in Table II of Appendix B; and

(2) If an individual were continually present in an unrestricted area, the dose from external sources would not exceed 0.002 rem (0.02 mSv) in an hour and 0.05 rem (0.5 mSv) in a year.

40.27(3) Upon approval from the Agency, the licensee or registrant may adjust the effluent concentration values in Appendix B, Table II, for members of the public, to take into account the actual physical and chemical characteristics of the effluents, such as aerosol size distribution, solubility, density, radioactive decay equilibrium, and chemical form.

RADIOLOGICAL CRITERIA FOR LICENSE TERMINATION

641—40.28(136C) Radiological criteria for license termination.

40.28(1) The criteria in this rule apply to the decommissioning of facilities licensed under 641—Chapter 39 as well as other facilities subject to the agency's jurisdiction under Iowa Code chapter 136C.

40.28(2) The criteria in this rule do not apply to sites which:

a. Have been decommissioned prior to July 1, 1999, in accordance with criteria identified in 641—subrule 39.4(33).

b. Have previously submitted and received agency approval on a license termination plan (LTP) or decommissioning plan that is compatible with the United States Nuclear Regulatory Commission (NRC) Site Decommissioning Management Plan (SDMP) Action Plan criteria; or

c. Submit a sufficient LTP or decommissioning plan prior to July 1, 1999, and such LTP or decommissioning plan is approved by the agency prior to July 1, 1999, except that if an environmental impact statement is required in the submittal, there will be a provision for day-to-day extension.

40.28(3) After a site has been decommissioned and the license terminated in accordance with the criteria in this chapter, the agency will require additional cleanup only if, based on new information, it determines that the criteria of this chapter were not met and residual radioactivity remaining at the site could result in significant threat to public health and safety.

40.28(4) When calculating TEDE to the average member of the critical group the licensee shall determine the peak annual TEDE dose expected within the first 1000 years after decommissioning.

40.28(5) Public notification and public participation. Upon the receipt of an LTP or decommissioning plan from the licensee or a proposal by the licensee for release of a site pursuant to 40.30(136C) or 40.31(136C) or whenever the agency deems such notice to be in the public interest, the agency shall:

a. Notify and solicit comments from:

(1) Local and state governments in the vicinity of the site and any Indian nation or other indigenous people that have treaty or statutory rights that could be affected by the decommissioning; and

(2) The Environmental Protection Agency for cases where the licensee proposes to release a site pursuant to 40.31(136C).

b. Publish a notice in the Iowa Administrative Bulletin and in a forum, such as local newspapers, letters to state or local organizations, or other appropriate forum, that is readily accessible to individuals in the vicinity of the site, and solicit comments from affected parties.

40.28(6) Minimization of contamination. Applicants for licenses, other than renewals, after July 1, 1999, shall describe in the application how facility design and procedures for operation will minimize, to the extent practicable, contamination of the facility and the environment, facilitate eventual decommissioning, and minimize, to the extent practicable, the generation of radioactive waste.

641—40.29(136C) Radiological criteria for unrestricted use. A site will be considered acceptable for unrestricted use if the residual radioactivity that is distinguishable from background radiation results in a TEDE to an average member of the critical group that does not exceed 25 mrem (0.25 mSv) per year, including that from groundwater sources of drinking water, and the residual radioactivity has been reduced to levels that are ALARA. Determination of the levels which are ALARA must take into account consideration of any detriments, such as deaths from transportation accidents, expected to potentially result from decontamination and waste disposal.

641—40.30(136C) Criteria for license termination under restricted conditions. A site will be considered acceptable for license termination under restricted conditions if:

40.30(1) The licensee can demonstrate that reductions in residual radioactivity necessary to comply with the provisions of 40.29(136C) would result in net public or environmental harm or were not being made because the residual levels associated with restricted conditions are ALARA. Determination of the levels which are ALARA must take into account consideration of any detriments, such as traffic accidents, expected to potentially result from decontamination and waste disposal;

40.30(2) The licensee has made provisions for legally enforceable institutional controls that provide reasonable assurance that the TEDE from residual radioactivity distinguishable from background to the average member of the critical group will not exceed 25 mrem (0.25 mSv) per year;

40.30(3) The licensee has provided sufficient financial assurance to enable an independent third party, including a governmental custodian of a site, to assume and carry out responsibilities for any necessary control and maintenance of the site. Acceptable financial assurance mechanisms are:

a. Funds placed into an account segregated from the licensee's assets and outside the licensee's administrative control as described in 641—subparagraph 39.4(26)*"f"*(1);

b. Surety method, insurance or other guarantee method as described in 641—subparagraph 39.4(26)*"f"*(2);

c. A statement of intent in the case of federal, state, or local government licensees, as described in 641—subparagraph 39.4(26)*"f"*(4); or

d. When a governmental entity is assuming custody and ownership of a site, an arrangement that is deemed acceptable by such governmental entity.

40.30(4) The licensee has submitted a decommissioning plan or license termination plan (LTP) to the agency indicating the licensee's intent to decommission in accordance with 641—paragraph 39.4(33)*"d"* and specifying that the licensee intends to decommission by restricting use of the site. The licensee shall document in the LTP or decommissioning plan how the advice of individuals and institutions in the community, who may be affected by the decommissioning, has been sought and incorporated, as appropriate, following analysis of that advice. Licensees proposing to decommission by restricting use of the site shall seek advice from such affected parties regarding the following matters concerning the proposed decommissioning:

a. Whether provisions for institutional controls proposed by the licensee:

(1) Will provide reasonable assurance that the TEDE from residual radioactivity distinguishable from background to the average member of the critical group will not exceed 25 mrem (0.25 mSv) per year;

(2) Will be enforceable; and

(3) Will not impose undue burdens on the local community or other affected parties.

b. Whether the licensee has provided sufficient financial assurance to enable an independent third party, including a governmental custodian of a site, to assume and carry out responsibilities for any necessary control and maintenance of the site;

c. In seeking advice on the issues identified in 40.30(4)*"a,"* the licensee shall provide for:

(1) Participation by representatives of a broad cross section of community interests who may be affected by the decommissioning;

(2) An opportunity for a comprehensive, collective discussion of the issues by the participants represented; and

(3) A publicly available summary of the results of all such discussions, including a description of the individual viewpoints of the participants on the issues and the extent of agreement and disagreement among the participants on the issues; and

40.30(5) Residual radioactivity at the site has been reduced so that if the institutional controls were no longer in effect, there is reasonable assurance that the TEDE from residual radioactivity distinguishable from background to the average member of the critical group is as low as reasonably achievable and would not exceed either:

a. 100 mrem (1 mSv) per year; or

b. 500 mrem (5 mSv) per year provided the licensee:

(1) Demonstrates that further reductions in residual radioactivity necessary to comply with the 100 mrem/yr (1 mSv/yr) value of 40.30(5)*"a"* are not technically achievable, would be prohibitively expensive, or would result in net public or environmental harm;

(2) Makes provisions for durable institutional controls; and

(3) Provides sufficient financial assurance to enable a responsible government entity or independent third party, including a governmental custodian of a site, both to carry out periodic rechecks of the site no less frequently than every five years to ensure that the institutional controls remain in place as necessary to meet the criteria of 40.30(2) and to assume and carry out responsibilities for any necessary controls and maintenance of those controls. Acceptable financial assurance mechanisms are those in subrule 40.30(3).

641—40.31(136C) Alternate criteria for license termination.

40.31(1) The agency may terminate a license using alternate criteria greater than the dose criterion of 641—40.29(136C), 40.30(2) and 40.30(4)*"a"*(1) if the licensee:

a. Provides assurance that public health and safety would continue to be protected and that it is unlikely that the dose from all man-made sources combined, other than medical, would be more than the 100 mrem/yr (1 mSv/yr) by submitting an analysis of possible sources of exposure;

b. Has employed, to the extent practical, restrictions on site use according to the provisions of 641—40.30(136C) in minimizing exposures at the site;

c. Reduces doses to ALARA levels taking into consideration any detriments such as traffic accidents expected to potentially result from decontamination and waste disposal; and

d. Has submitted a decommissioning plan or license termination plan (LTP) to the agency indicating the licensee's intent to decommission in accordance with 641—paragraph 39.4(33)*"d,"* and specifying that the licensee proposes to decommission by use of alternate criteria. The licensee shall document in the decommissioning plan or LTP how the advice of individuals and institutions in the community, who may be affected by the decommissioning, has been sought and addressed, as appropriate, following analysis of that advice. In seeking such advice, the licensee shall provide for:

(1) Participation by representatives of a broad cross section of community interests who may be affected by the decommissioning;

(2) An opportunity for a comprehensive, collective discussion on the issues by the participants represented; and

(3) A publicly available summary of the results of all such discussions, including a description of the individual viewpoints of the participants on the issues and the extent of agreement and disagreement among the participants on the issues.

40.31(2) The use of alternate criteria to terminate a license requires the approval of the agency after consideration of the staff's recommendations that will address any comments provided by the Environmental Protection Agency and any public comments submitted pursuant to 40.32(136C).

TESTING FOR LEAKAGE OR CONTAMINATION OF SEALED SOURCES

641—40.32(136C) Testing for leakage or contamination of sealed sources.

40.32(1) The licensee in possession of any sealed source shall ensure that:

a. Each sealed source, except as specified in 40.34(2), is tested for leakage or contamination and the test results are received before the sealed source is put into use unless the licensee has a certificate from the transferor indicating that the sealed source was tested within six months before transfer to the licensee.

b. Each sealed source that is not designed to emit alpha particles is tested for leakage or contamination at intervals not to exceed six months or at alternative intervals approved by the Agency, after evaluation of information specified by 641—subparagraphs 39.4(29)*"l"*(4) and 39.4(29)*"l"*(5) of these rules, an Agreement State, a Licensing State, or the U.S. Nuclear Regulatory Commission.

c. Each sealed source that is designed to emit alpha particles is tested for leakage or contamination at intervals not to exceed three months or at alternative intervals approved by the Agency, after evaluation of information specified by 641—subparagraphs 39.4(29)*"l"*(4) and 39.4(29)*"l"*(5) of these rules, an Agreement State, a Licensing State, or the Nuclear Regulatory Commission.

d. For each sealed source that is required to be tested for leakage or contamination, at any other time there is reason to suspect that the sealed source might have been damaged or might be leaking, the licensee or registrant shall ensure that the sealed source is tested for leakage or contamination before further use.

e. Tests for leakage for all sealed sources, except brachytherapy sources manufactured to contain radium, shall be capable of detecting the presence of 0.005 μCi (185 Bq) of radioactive material on a test sample. Test samples shall be taken from the sealed source or from the surfaces of the container in which the sealed source is stored or mounted on which one might expect contamination to accumulate. For a sealed source contained in a device, test samples are obtained when the source is in the "off" position.

f. The test for leakage for brachytherapy sources manufactured to contain radium shall be capable of detecting an absolute leakage rate of 0.001 μCi (37 Bq) of radon-222 in a 24-hour period when the collection efficiency for radon-222 and its daughters has been determined with respect to collection method, volume and time.

g. Tests for contamination from radium daughters shall be taken on the interior surface of brachytherapy source storage containers and shall be capable of detecting the presence of 0.005 μCi (185 Bq) of a radium daughter which has a half-life greater than four days.

40.32(2) A licensee need not perform tests for leakage or contamination on the following sealed sources:

a. Sealed sources containing only radioactive material with a half-life of less than 30 days;

b. Sealed sources containing only radioactive material as a gas;

c. Sealed sources containing 100 μCi (3.7 MBq) or less of beta- or photon-emitting material or 10 μCi (370 kBq) or less of alpha-emitting material;

d. Sealed sources containing only hydrogen-3;

e. Seeds of iridium-192 encased in nylon ribbon; and

f. Sealed sources, except those used in teletherapy and brachytherapy and those containing radium, which are stored, not being used and identified as in storage. The licensee shall, however, test each such sealed source for leakage or contamination and receive the test results before any use or transfer unless it has been tested for leakage or contamination within six months before the date of use or transfer.

b. The release of radioactive material, inside or outside of a restricted area, so that, had an individual been present for 24 hours, the individual could have received an intake in excess of one occupational ALI. This provision does not apply to locations where personnel are not normally stationed during routine operations, such as hot-cells or process enclosures.

c. In addition to the requirements of paragraphs *"a"* and *"b"* above, each licensee shall notify the Iowa department of public health within 24 hours after the discovery of any of the following events involving licensed material:

(1) An unplanned contamination event that:

1. Requires access to the contaminated area, by workers or the public, to be restricted for more than 24 hours by imposing additional radiological controls or by prohibiting entry into the area;

2. Involves a quantity of material greater than five times the lowest annual limit on intake specified in Appendix B for the material; and

3. Has access to the area restricted for a reason other than to allow isotopes with a half-life of less than 24 hours to decay prior to decontamination.

(2) An event in which equipment is disabled or fails to function as designed when:

1. The equipment is required by regulation or license condition to prevent releases exceeding regulatory limits, to prevent exposures to radiation and radioactive materials exceeding regulatory limits, or to mitigate the consequences of an accident;

2. The equipment is required to be available and operable when it is disabled or fails to function; and

3. No redundant equipment is available and operable to perform the required safety function.

(3) An event that requires unplanned medical treatment at a medical facility of an individual with spreadable radioactive contamination on the individual's clothing or body.

(4) An unplanned fire or explosion damaging any licensed material or any device, container, or equipment containing licensed material when:

1. The quantity of material involved is greater than five times the lowest annual limit on intake specified in Appendix B for the material; and

2. The damage affects the integrity of the licensed material or its container.

40.96(3) The licensee or registrant shall prepare each report filed with the Agency pursuant to 40.96(136C) so that names of individuals who have received exposure to sources of radiation are stated in a separate and detachable portion of the report.

40.96(4) Licensees or registrants shall make the reports required by 40.96(1) and 40.96(2) to the agency by telephone, telegram, mailgram, or facsimile.

a. Licensees or registrants making initial reports to the Iowa department of public health shall to the extent that the information is available at the time of notification include:

(1) The caller's name and call-back telephone number;

(2) A description of the event, including date and time;

(3) The exact location of the event;

(4) The isotopes, quantities, and chemical and physical form of the licensed material involved; and

(5) Any personnel radiation exposure data available.

b. Each licensee or registrant who makes a report required by 40.96(1) or 40.96(2) shall submit a written follow-up report within 30 days of the initial report. Written reports prepared pursuant to other rules may be submitted to fulfill this requirement if the reports contain all of the necessary information. These written reports must be sent to the Iowa Department of Public Health, Bureau of Radiological Health, Lucas State Office Building, Des Moines, Iowa 50319. The reports must include the following:

(1) A description of the event, including the probable cause and the manufacturer and model number (if applicable) of any equipment that failed or malfunctioned;

(2) The exact location of the event;

(3) The isotopes, quantities, and chemical and physical form of the licensed material involved;

(4) Date and time of the event;

(5) Corrective actions taken or planned and the results of any evaluations or assessments; and

(6) The extent of exposure of individuals to radiation or to radioactive materials without identification of individuals by name.

40.96(5) The provisions of 641—40.96(136C) do not apply to doses that result from planned special exposures, provided such doses are within the limits for planned special exposures and are reported pursuant to 641—40.98(136C).

641—40.97(136C) Reports of exposures, radiation levels, and concentrations of radioactive material exceeding the constraints or limits.

40.97(1) Reportable events. In addition to the notification required by 40.96(136C), each licensee or registrant shall submit a written report within 30 days after learning of any of the following occurrences:

a. Incidents for which notification is required by 40.96(136C); or

b. Doses in excess of any of the following:

(1) The occupational dose limits for adults in 40.15(136C); or

(2) The occupational dose limits for a minor in 40.21(136C); or

(3) The limits for an embryo/fetus of a declared pregnant woman in 40.22(136C); or

(4) The limits for an individual member of the public in 40.26(136C); or

(5) Any applicable limit in the license or registration; or

(6) The ALARA constraints for air emissions established under 641—40.10(136C); or

c. Levels of radiation or concentrations of radioactive material in:

(1) A restricted area in excess of applicable limits in the license or registration; or

(2) An unrestricted area in excess of ten times the applicable limit set forth in this chapter or in the license or registration, whether or not involving exposure of any individual in excess of the limits in 40.26(136C); or

d. For licensees subject to the provisions of U.S. Environmental Protection Agency's generally applicable environmental radiation standards in 40 CFR 190, levels of radiation or releases of radioactive material in excess of those standards, or of license conditions related to those standards.

40.97(2) Contents of reports.

a. Each report required by 40.97(1) shall describe the extent of exposure of individuals to radiation and radioactive material, including, as appropriate:

(1) Estimates of each individual's dose; and

(2) The levels of radiation and concentrations of radioactive material involved; and

(3) The cause of the elevated exposures, dose rates, or concentrations; and

(4) Corrective steps taken or planned to ensure against a recurrence, including the schedule for achieving conformance with applicable limits, ALARA constraints, generally applicable environmental standards, and associated license conditions. Each report filed pursuant to this paragraph must include the name, social security number, and date of birth for each occupationally overexposed individual. The report must be prepared so that this information is stated in a separate and detachable part of the report.

b. Each report filed pursuant to 40.97(1) shall include for each individual exposed: the name, social security account number, and date of birth. With respect to the limit for the embryo/fetus in 40.22(136C), the identifiers should be those of the declared pregnant woman. The report shall be prepared so that this information is stated in a separate and detachable portion of the report.

40.97(3) All licensees or registrants who make reports pursuant to 40.97(1) shall submit the report in writing to the Agency.

641—40.98(136C) Reports of planned special exposures. The licensee or registrant shall submit a written report to the Agency within 30 days following any planned special exposure conducted in accordance with 40.20(136C) informing the Agency that a planned special exposure was conducted and indicating the date the planned special exposure occurred and the information required by 40.85(136C).

641—40.99 Reserved.

641—40.100(136C) Reports of individual monitoring.

40.100(1) This section applies to each person licensed or registered by the Agency to:

a. Possess or use sources of radiation for purposes of industrial radiography pursuant to 641—39.4(136C) and 641—Chapter 45; or

b. Receive radioactive waste from other persons for disposal pursuant to 10 CFR Part 61 of federal regulations or appropriate other Agreement State regulations; or

c. Possess or use at any time, for processing or manufacturing for distribution pursuant to 641—39.4(136C) or 641—41.2(136C), radioactive material in quantities exceeding any one of the following quantities:

Radionuclide	Activity[a]	
	Ci	GBq
Cesium-137	1	37
Cobalt-60	1	37
Gold-198	100	3,700
Iodine-131	1	37
Iridium-192	10	370
Krypton-85	1,000	37,000
Promethium-147	10	370
Technetium-99m	1,000	37,000

[a] The Agency may require as a license condition, or by rule, regulation, or order pursuant to 40.105(136C), reports from licensees or registrants who are licensed or registered to use radionuclides not on this list, in quantities sufficient to cause comparable radiation levels.

40.100(2) Each licensee or registrant in a category listed in 40.100(1) shall submit an annual report of the results of individual monitoring carried out by the licensee or registrant for each individual for whom monitoring was required by 40.36(136C) during that year. The licensee or registrant may include additional data for individuals for whom monitoring was provided but not required. The licensee or registrant shall use IDPH Form 588-2834 or equivalent or electronic media containing all the information required by IDPH Form 588-2834.

40.100(3) The licensee or registrant shall file the report required by 40.100(2), covering the preceding year, on or before April 30 of each year. The licensee or registrant shall submit the report to the Agency.

641—40.101(136C) Notifications and reports to individuals.

40.101(1) Requirements for notification and reports to individuals of exposure to radiation or radioactive material are specified in 641—40.112(136C).

40.101(2) When a licensee or registrant is required pursuant to 40.97(136C), 40.98(136C), or 40.100(136C) to report to the agency any exposure of an identified occupationally exposed individual, or an identified member of the public, to radiation or radioactive material, the licensee or registrant shall also provide a copy of the report submitted to this agency to the individual. Such notice shall be transmitted at a time not later than the transmittal to the agency, and shall comply with the provisions of 40.112(1).

641—40.102(136C) Reports of leaking or contaminated sealed sources. The licensee shall file a report within five days with the Agency if the test for leakage or contamination required pursuant to 40.32(136C) indicates a sealed source is leaking or contaminated. The report shall include the equipment involved, the test results and the corrective action taken.

641—40.103 and **40.104** Reserved.

ADDITIONAL REQUIREMENTS

641—40.105(136C) Vacating premises. Each specific licensee shall, no less than 30 days before vacating or relinquishing possession or control of premises which may have been contaminated with radioactive material as a result of their activities, notify the Agency in writing of intent to vacate. When deemed necessary by the Agency, the licensee shall decontaminate the premises in such a manner as the Agency may specify.

641—40.106 to **40.109** Reserved.

NOTICES, INSTRUCTIONS, AND REPORTS TO WORKERS; INSPECTIONS

641—40.110(136C) Posting of notices to workers.

40.110(1) Each licensee or registrant, except those registrants with diagnostic X-ray systems, shall post current copies of the following documents:

a. This subrule and 641—Chapter 40;

b. The license, certificate of registration, conditions or documents incorporated into the license by reference and amendments thereto;

c. The operating procedures applicable to activities under the license or registration; and

d. Any notice of violation involving radiological working conditions, proposed imposition of civil penalty, or order issued pursuant to 641—Chapter 38, and any response from the licensee or registrant.

40.110(2) If posting of a document specified in 40.110(1)*"a,"* 40.110(1)*"b"* and 40.110(1)*"c"* is not practical, the licensee or registrant may post a notice which describes the document and states where it may be examined.

40.110(3) Agency Form "Notice to Employees" shall be posted by each licensee or registrant.

40.110(4) Agency documents posted pursuant to 40.110(1)*"d"* shall be posted within five working days after receipt of the documents from the Agency; the licensee's or registrant's response, if any, shall be posted within five working days after dispatch from the licensee or registrant. Such documents shall remain posted for a minimum of five working days or until action correcting the violation has been completed, whichever is later.

40.110(5) Documents, notices, or forms posted pursuant to 40.110(1) shall appear in a sufficient number of places to permit individuals engaged in work under the license or registration to observe them on the way to or from any particular work location to which the document applies, shall be conspicuous, and shall be replaced if defaced or altered.

641—40.111(136C) Instructions to workers.

40.111(1) All individuals who in the course of employment are likely to receive in a year an occupational dose in excess of 100 mrem (1 mSv):

a. Shall be kept informed of the storage, transfer, or use of sources of radiation;

b. Shall be instructed in the health protection problems associated with exposure to radiation or radioactive material to the individual and potential offspring, in precautions or procedures to minimize exposure, and in the purposes and functions of protective devices employed;

c. Shall be instructed in, and required to observe, to the extent within the worker's control, the applicable provisions of these rules and licenses for the protection of personnel from exposures to radiation or radioactive material occurring in such areas;

d. Shall be instructed of their responsibility to report promptly to the licensee or registrant any condition which may constitute, lead to, or cause a violation of the Act, these rules, and licenses or unnecessary exposure to radiation or radioactive material;

e. Shall be instructed in the appropriate response to warnings made in the event of any unusual occurrence or malfunction that may involve exposure to radiation or radioactive material; and

f. Shall be advised as to the radiation exposure reports which workers shall be furnished pursuant to 641—40.113(136C).

g. The instruction in *"b"* through *"f"* above shall be conducted at least annually.

h. Shall be commensurate with potential radiological health protection problems present in the workplace.

40.111(2) In determining those individuals subject to the requirements of 40.111(1), consideration must be given to assigning activities during normal and abnormal situations involving exposure to sources of radiation which can reasonably be expected to occur during the life of the facility. The extent of these instructions must be commensurate with potential radiological health protection problems present in the workplace.

641—40.112(136C) Notifications and reports to individuals.

40.112(1) Radiation exposure data for an individual and the results of any measurements, analyses, and calculations of radioactive material deposited or retained in the body of an individual shall be reported to the individual as specified in this subrule. The information reported shall include data and results obtained pursuant to these rules, orders, or license conditions, as shown in records maintained by the licensee or registrant pursuant to 40.86(136C). Each notification and report shall:

a. Be in writing;

b. Include appropriate identifying data such as the name of the licensee or registrant, the name of the individual, and the individual's identification number, preferably social security number;

c. Include the individual's exposure information; and

d. Contain the following statement:

"This report is furnished to you under the provisions of 40.112(136C) of Iowa's Radiation Machine and Radioactive Materials rules. You should preserve this report for further reference."

40.112(2) Each licensee or registrant shall advise each worker annually of the worker's dose as shown in records maintained by the licensee or registrant pursuant to 40.86(136C).

40.112(3) Each licensee or registrant shall furnish a report of the worker's exposure to sources of radiation at the request of a worker formerly engaged in activities controlled by the licensee or registrant. The report shall include the dose record for each year the worker was required to be monitored pursuant to 40.37(136C). Such report shall be furnished within 30 days from the date of the request, or within 30 days after the dose of the individual has been determined by the licensee or registrant, whichever is later. The report shall cover the period of time that the worker's activities involved exposure to sources of radiation and shall include the dates and locations of work under the license or registration in which the worker participated during this period.

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"SSD" means the distance between the source and the skin entrance plane of the patient.

"Stationary X-ray equipment" (see "X-ray equipment").

"Stray radiation" means the sum of leakage and scattered radiation.

"Technique factors" means the following conditions of operation:

a. For capacitor energy storage equipment, peak tube potential in kV and quantity of charge in mAs;

b. For field emission equipment rated for pulsed operation, peak tube potential in kV, and number of X-ray pulses;

c. For CT X-ray systems designed for pulsed operation, peak tube potential in kV, scan time in seconds, and either tube current in mA, X-ray pulse width in seconds, and the number of X-ray pulses per scan, or the product of tube current, X-ray pulse width, and the number of X-ray pulses in mAs;

d. For CT X-ray systems not designed for pulsed operation, peak tube potential in kV, and either tube current in mA and scan time in seconds, or the product of tube current and exposure time in mAs and the scan time when the scan time and exposure time are equivalent; and

e. For all other equipment, peak tube potential in kV, and either tube current in mA and exposure time in seconds, or the product of tube current and exposure time in mAs.

"Termination of irradiation" means the stopping of irradiation in a fashion which will not permit continuance of irradiation without the resetting of operating conditions at the control panel.

"Tomogram" means the depiction of the X-ray attenuation properties of a section through the body.

"Tube housing assembly" means the tube housing with tube installed. It includes high-voltage, or filament transformers, or both, and other appropriate elements when such are contained within the tube housing.

"Tube rating chart" means the set of curves which specify the rated limits of operation of the tube in terms of the technique factors.

"Useful beam" means the radiation emanating from the tube housing port or the radiation head and passing through the aperture of the beam-limiting device when the exposure controls are in a mode to cause the system to produce radiation.

"Variable-aperture beam-limiting device" means a beam-limiting device which has capacity for stepless adjustment of the X-ray field size at a given SID.

"Visible area" means that portion of the input surface of the image receptor over which incident X-ray photons are producing a visible image.

"X-ray control" means a device, switch, button or similar means by which an operator initiates or terminates the radiation exposure. The X-ray exposure control may include such associated equipment as timers and backup timers.

"X-ray control panel" means a device which controls input power to the X-ray high-voltage generator and the X-ray tube. It includes equipment such as timers, phototimers, automatic brightness stabilizers, and similar devices, which control the technique factors of an X-ray exposure.

"X-ray equipment" means an X-ray system, subsystem, or component thereof. Types of X-ray equipment are as follows:

a. *"Mobile X-ray equipment"* means X-ray equipment mounted on a permanent base with wheels or casters for moving while completely assembled.

b. *"Portable X-ray equipment"* means X-ray equipment designed to be hand-carried.

c. *"Stationary X-ray equipment"* means X-ray equipment which is installed in a fixed location.

"X-ray field" means that area of the intersection of the useful beam and any one of the set of planes parallel to and including the plane of the image receptor, whose perimeter is the locus of points at which the exposure rate is one-fourth of the maximum in the intersection.

"X-ray high-voltage generator" means a device which transforms electrical energy from the potential supplied by the X-ray control to the tube operating potential. The device may also include means for transforming alternating current to direct current, filament transformers for the X-ray tube(s), high-voltage switches, electrical protective devices, and other appropriate elements.

"X-ray system" means an assemblage of components for the controlled production of X-rays. It includes minimally an X-ray high-voltage generator, an X-ray control, a tube housing assembly, a beam-limiting device, and the necessary supporting structures. Additional components which function with the system are considered integral parts of the system.

"X-ray table" means a patient support device with its patient support structure (tabletop) interposed between the patient and the image receptor during radiography or fluoroscopy. This includes, but is not limited to, any stretcher equipped with a radiolucent panel and any table equipped with a cassette tray (or bucky), cassette tunnel, image intensifier, or spot-film device beneath the tabletop.

41.1(3) *Administrative controls.*

a. Registrant. The registrant shall be responsible for maintaining and directing the operation of the X-ray system(s) under the registrant's administrative control and for having the following minimum tests performed every two years by a registered service facility:

1. Medical/chiropractic: timer accuracy, exposure reproducibility, kVp accuracy as set forth in 41.1(6), and light field/X-ray field alignment as set forth in 41.1(6).
2. Dental/podiatry: timer accuracy, exposure reproducibility and kVp accuracy as set forth in 41.1(7).
3. Fluoroscopic: entrance exposure rate (641—41.1(5)*"c"*), minimum SSD (641—41.1(5)*"f"*).
4. Veterinary systems are exempt from the above testing requirements.

All service and installation shall be performed by persons registered under 641—subrule 39.3(3). The registrant or the registrant's agent shall ensure that the requirements of these rules are met in the operation of the X-ray system(s).

(1) An X-ray system which does not meet the provisions of these rules shall not be operated for diagnostic or therapeutic purposes unless so directed by the agency.

(2) Individuals who will be operating the X-ray systems shall be adequately instructed in safe operating procedures and be competent in the safe use of the equipment in accordance with 641—Chapter 42 as applicable. The individual's permit to practice shall be posted in the immediate vicinity of the general work area and visible to the public.

(3) A chart shall be provided in the vicinity of the diagnostic X-ray system's control panel which specifies, for all examinations performed with that system, the following information:

1. Patient's anatomical size versus technique factors to be utilized;
2. Type and size of the film or film-screen combination to be used;
3. Type and focal distance of the grid to be used, if any;
4. Source to image receptor distance to be used, except for dental intra-oral radiography; and
5. Type and location of placement of human patient shielding to be used (e.g., gonad).

(4) Written safety procedures shall be provided to each individual operating X-ray equipment, including patient holding and any restrictions of the operating technique required for the safe operation of the particular X-ray system. The operator shall be able to demonstrate familiarity with these procedures.

(5) Except for patients who cannot be moved out of the room, only the staff and ancillary personnel required for the medical procedure or training shall be in the room during the radiographic exposure. Other than the patient being examined:

1. All individuals shall be positioned such that no part of the body will be struck by the useful beam unless protected by 0.5 millimeter lead equivalent.
2. Staff and ancillary personnel shall be protected from the direct scatter radiation by protective aprons or whole body protective barriers of not less than 0.25 millimeter lead equivalent.
3. Human patients who cannot be removed from the room shall be protected from the direct scatter radiation by whole body protective barriers of 0.25 millimeter lead equivalent or shall be so positioned that the nearest portion of the body is at least 2 meters from both the tube head and the nearest edge of the image receptor.

(6) Gonad shielding of not less than 0.25 millimeter lead equivalent shall be used for human patients, who have not passed the reproductive age, during radiographic procedures in which the gonads are in the useful beam, except for cases in which this would interfere with the diagnostic procedure.

(7) Individuals shall not be exposed to the useful beam except for healing arts purposes and unless such exposure has been authorized by a licensed practitioner of the healing arts. This provision specifically prohibits deliberate exposure for the following purposes:

1. Exposure of an individual for training, demonstration, or other nonhealing arts purposes; and
2. Exposure of an individual for the purpose of healing arts screening except as authorized by 41.1(3)*"a"*(11).

(8) When a patient or film must be provided with auxiliary support during a radiation exposure:

1. Mechanical holding devices shall be used when the technique permits. The written safety procedures, required by 41.1(3)*"a"*(4), shall list individual projections where holding devices cannot be utilized;
2. Written safety procedures, as required by 41.1(3)*"a"*(4), shall indicate the requirements for selecting a holder and the procedure the holder shall follow;
3. The human holder shall be protected as required by 41.1(3)*"a"*(5)"2";
4. No individual shall be used routinely to hold film or patients; and
5. In those cases where the human patient must hold the film, except during intraoral examinations, any portion of the body other than the area of clinical interest struck by the useful beam shall be protected by not less than 0.5 millimeter lead equivalent material.
6. Each facility shall have leaded aprons and gloves available in sufficient numbers to provide protection to all personnel who are involved with X-ray operations and who are otherwise not shielded.

(9) Procedures and auxiliary equipment designed to minimize patient and personnel exposure commensurate with the needed diagnostic information shall be utilized.

1. The speed of film or screen and film combinations shall be the fastest speed consistent with the diagnostic objective of the examinations. Film cassettes without intensifying screens shall not be used for any routine diagnostic radiological imaging, with the exception of veterinary radiography and standard film packets for intra-oral use in dental radiography.
2. The radiation exposure to the patient shall be the minimum exposure required to produce images of good diagnostic quality.
3. Portable or mobile X-ray equipment shall be used only for examinations where it is impractical to transfer the patient(s) to a stationary X-ray installation.
4. X-ray systems subject to 41.1(6) shall not be utilized in procedures where the source to human patient distance is less than 30 centimeters.
5. If grids are used between the patient and the image receptor to decrease scatter to the film and improve contrast, the grid shall:

- Be positioned properly, i.e., tube side facing the correct direction, and the grid centered to the central ray;
- If of the focused type, be at the proper focal distance for the SIDs being used.

(10) All individuals who are associated with the operation of an X-ray system are subject to the requirements of 641—subrule 40.36(3) and rules 641—40.15(136C) and 641—40.37(136C). In addition:

1. When protective clothing or devices are worn on portions of the body and a personnel monitoring device(s) is present, it (they) shall be worn in accordance with the recommendations found in Chapter 4 of the National Council of Radiation Protection and Measurements Report No. 57.
2. Exposure of a personnel monitoring device to deceptively indicate a dose delivered to an individual is prohibited.

(11) Healing arts screening. Any person proposing to conduct a healing arts screening program shall not initiate such a program without prior approval of the agency. When requesting such approval, that person shall submit the information outlined in Appendix C of this chapter. If any information submitted to the agency becomes invalid or outdated, the agency shall be immediately notified.

(12) Fluoroscopic equipment shall be used only under the direct supervision of a licensed practitioner.

b. Information and maintenance record and associated information. The registrant shall maintain the following information for each X-ray system for inspection by the agency:

(1) Model and serial numbers of all major components and user's manual for those components;

(2) Tube rating charts and cooling curves;

(3) Records of surveys, calibrations, maintenance, and modifications performed on the X-ray system(s) with the names of persons who performed such services;

(4) A copy of all correspondence with this agency regarding that X-ray system.

c. X-ray utilization log. Except for veterinary facilities, each facility shall maintain an X-ray log containing the patient's name, the type of examinations, the dates the examinations were performed, the name of the individual performing the X-ray procedure, and the number of exposures and retakes involved. When the patient or film must be provided with human auxiliary support, the name of the human holder shall be recorded.

d. Plan review.

(1) Prior to construction of all new installations, or modifications of existing installations, or installation of equipment into existing facilities utilizing X-rays for diagnostic or therapeutic purposes, the floor plans and equipment arrangements shall be submitted to the agency for review and approval. The required information is denoted in Appendices A and B of this chapter.

(2) The agency may require the applicant to utilize the services of a qualified expert to determine the shielding requirements prior to the plan review and approval.

(3) The approval of such plans shall not preclude the requirement of additional modifications should a subsequent analysis of operating conditions indicate the possibility of an individual receiving a dose in excess of the limits prescribed in 641—Chapter 40.

e. Federal performance standards. All X-ray equipment shall comply with the applicable performance standards of 21 CFR 1020.30 to 1020.40 which were in effect at the time the unit was manufactured. All equipment manufactured before the effective date of 21 CFR 1020.30 to 1020.40 shall meet the requirements of the Iowa rules. Persons registered to possess the affected radiation-emitting equipment in Iowa shall be responsible for maintaining the equipment in compliance with the appropriate federal performance standards.

f. X-ray film processing facilities and practices (except for mammography). Each installation using a radiographic X-ray system and using analog image receptors (e.g., radiographic film) shall have available suitable equipment for handling and processing radiographic film in accordance with the following provisions:

(1) Manually developed film.

1. Processing tanks shall be constructed of mechanically rigid, corrosion-resistant material; and

2. The temperature of solutions in the tanks shall be maintained within the range of 60°F to 80°F (16°C to 27°C). Film shall be developed in accordance with the time-temperature relationships recommended by the film manufacturer or, in the absence of such recommendations, with the time-temperature chart available from the agency.

3. Devices shall be utilized which will indicate the actual temperature of the developer and signal the passage of a preset time appropriate to the developing time required.

2. Fluoroscopic equipment which is not provided with automatic exposure rate control shall not be operable at any combination of tube potential and current which will result in an exposure rate in excess of 1.3 mC/kg (5 roentgens) per minute at the point where the center of the useful beam enters the patient, except:

- During recording of fluoroscopic images; or
- When an optional high level control is activated. Special means of activation of high level controls shall be required. The high level control shall only be operable when continuous manual activation is provided by the operator. A continuous signal audible to the fluoroscopist shall indicate that the high level control is being employed.

3. Compliance with the requirements of 41.1(5)"*c*" shall be determined as follows: movable grids and compression devices shall be removed from the useful beam during the measurement;

- If the source is below the table, exposure rate shall be measured 1 centimeter above the tabletop or cradle;
- If the source is above the table, the exposure rate shall be measured at 30 centimeters above the tabletop with the end of the beam-limiting device or spacer positioned as closely as possible to the point of measurement;
- All C-arm fluoroscopes, both stationary and mobile, shall meet the entrance exposure rate limits at 30 centimeters from the input surface of the fluoroscopic imaging assembly with the source positioned at any available SID provided that the end of the spacer assembly or beam-limiting device is not closer than 30 centimeters from the input surface of the fluoroscopic imaging assembly.
- For a lateral type fluoroscope, the exposure rate shall be measured at a point 15 centimeters from the centerline of the X-ray table and in the direction of the X-ray source with the end of the beam-limiting device or spacer positioned as closely as possible to the point of measurement. If the tabletop is movable, it shall be positioned as closely as possible to the lateral X-ray source, with the end of the beam-limiting device or spacer no closer than 15 centimeters to the centerline of the X-ray table.

4. Periodic measurement of entrance exposure rate shall be performed by a qualified expert for both typical and maximum values as follows: Such measurements shall be made annually or after any maintenance of the system which might affect the entrance exposure rate; results of these measurements shall be posted where any fluoroscopist may have ready access to such results while using the fluoroscope and in the record required in 41.1(3)"*b*"(3). The measurement results shall be stated in roentgens per minute (coulombs per kilogram) and include the technique factors used in determining such results. The name of the individual performing the measurements and the date the measurements were performed shall be included in the results. Conditions of periodic measurements of entrance exposure rate are as follows:

- The measurement shall be made under the conditions that satisfy the requirements of 41.1(5)"*c*"(1)"2";
- The kVp mA, and other selectable parameters shall be adjusted to those settings typical of clinical use on a 23 cm thick abdominal patient;
- The X-ray system(s) that incorporates automatic exposure rate control shall have sufficient attenuative material placed in the useful beam to produce the maximum entrance exposure rate of the system.

(2) Reserved.

d. Barrier transmitted radiation rate limits.

(1) The exposure rate due to transmission through the primary protective barrier with the attenuation block in the useful beam, combined with radiation from the image intensifier, if provided, shall not exceed 2 milliroentgens (0.516 μC/kg) per hour at 10 centimeters from any accessible surface of the fluoroscopic imaging assembly beyond the plane of the image receptor for each roentgen per minute of entrance exposure rate.

(2) Measuring compliance of barrier transmission.

1. The exposure rate due to transmission through the primary protective barrier combined with radiation from the image intensifier shall be determined by measurements averaged over an area of 100 square centimeters with no linear dimension greater than 20 centimeters.

2. If the source is below the tabletop, the measurement shall be made with the input surface of the fluoroscopic imaging assembly positioned 30 centimeters above the tabletop.

3. If the source is above the tabletop and the SID is variable, the measurement shall be made with the end of the beam-limiting device or spacer as close to the tabletop as it can be placed, provided that it shall not be closer than 30 centimeters.

4. Movable grids and compression devices shall be removed from the useful beam during the measurement.

e. Indication of potential and current. During fluoroscopy and cinefluorography the kV and the mA shall be continuously indicated.

f. Source-to-skin distance. The SSD shall not be less than:

(1) 38 centimeters on stationary fluoroscopes installed on or after August 1, 1974,

(2) 35.5 centimeters on stationary fluoroscopes which were in operation prior to August 1, 1974,

(3) 30 centimeters on all mobile fluoroscopes, and

(4) 20 centimeters for image-intensified fluoroscopes used for specific surgical application.

(5) The written safety procedures must provide precautionary measures to be adhered to during the use of this device in addition to the procedures provided in 41.1(3)*"a"*(4).

g. Fluoroscopic timer.

(1) Means shall be provided to preset the cumulative on-time of the fluoroscopic X-ray tube. The maximum cumulative time of the timing device shall not exceed five minutes without resetting.

(2) A signal audible to the fluoroscopist shall indicate the completion of any preset cumulative on-time. Such signal shall continue to sound while X-rays are produced until the timing device is reset.

h. Control of scattered radiation.

(1) Fluoroscopic table designs when combined with procedures utilized shall be such that no unprotected part of any staff or ancillary individual's body shall be exposed to unattenuated scattered radiation which originates from under the table. The attenuation required shall be not less than 0.25 millimeter lead equivalent.

(2) Equipment configuration when combined with procedures shall be such that no portion of any staff or ancillary individual's body, except the extremities, shall be exposed to the unattenuated scattered radiation emanating from above the tabletop unless that individual:

1. Is at least 120 centimeters from the center of the useful beam, or

2. The radiation has passed through not less than 0.25 millimeter lead equivalent material including, but not limited to, drapes, Bucky-slot cover panel, or self-supporting curtains, in addition to any lead equivalency provided by the protective apron referred to in 41.1(3)*"a"*(5).

(3) The agency may grant exemptions to 41.1(5)*"h"*(2) where a sterile field will not permit the use of the normal protective barriers. Where the use of prefitted sterilized covers for the barriers is practical, the agency shall not permit such exemption.

i. Spot-film exposure reproducibility. Fluoroscopic systems equipped with spot-film (radiographic) mode shall meet the exposure reproducibility requirements of 41.1(6)*"d"* when operating in the spot-film mode.

j. Radiation therapy simulation systems. Radiation therapy simulation systems shall be exempt from all the requirements of 41.1(5)*"a," "c," "d,"* and *"g"* provided that:

(1) Such systems are designed and used in such a manner that no individual other than the patient is in the X-ray room during periods of time when the system is producing X-rays; and

(2) Systems which do not meet the requirements of 41.1(5)*"g"* are provided with a means of indicating the cumulative time that an individual patient has been exposed to X-rays. Procedures shall require in such cases that the timer be reset between examinations.

41.1(6) *Radiographic systems other than fluoroscopic, dental intraoral, or computed tomography X-ray systems.*

a. Beam limitation. The useful beam shall be limited to the area of clinical interest. This shall be considered met if a positive beam-limiting device meeting manufacturer's specifications and the requirements of 41.1(6)*"h"*(2) have been properly used or if evidence of collimation is shown on at least three sides or three corners of the film (for example, projections from the shutters of the collimator, cone cutting at the corners, or borders at the film's edge.)

(1) General purpose stationary and mobile X-ray systems and veterinarian systems (other than portable) installed after July 1, 1998.

1. Only X-ray systems provided with means for independent stepless adjustment of at least two dimensions of the X-ray field shall be used.

2. A method shall be provided for visually defining the perimeter of the X-ray field.

- Illuminance shall be greater than 7.5 foot-candles or 80.3 LUX at 100 centimeters or maximum SID whichever is less.
- The total misalignment of the edges of the visually defined field with the respective edges of the X-ray field along either the length or width of the visually defined field shall not exceed 2 percent of the distance from the source to the center of the visually defined field when the surface upon which it appears is perpendicular to the axis of the X-ray beam.

3. The agency may grant an exemption on noncertified X-ray systems to 41.1(6)*"a"*(1)"1" and "2" provided the registrant makes a written application for such exemption and in that application demonstrates it is impractical to comply with 41.1(6)*"a"*(1)"1" and "2"; and the purpose of 41.1(6)*"a"*(1)"1" and "2" will be met by other methods.

(2) Additional requirements for stationary general purpose X-ray systems. In addition to the requirements of 41.1(6)*"a"*(1), stationary general purpose X-ray systems, both certified and noncertified, shall meet the following requirements:

1. A method shall be provided to indicate when the axis of the X-ray beam is perpendicular to the plane of the image receptor, to align the center of the X-ray field with respect to the center of the image receptor to within 2 percent of the SID, and to indicate the SID to within 2 percent;

2. The beam-limiting device shall indicate numerically the field size in the plane of the image receptor to which it is adjusted; and

3. Indication of field size dimensions and SIDs shall be specified in inches or centimeters, and shall be such that aperture adjustments result in X-ray field dimensions in the plane of the image receptor which correspond to those indicated by the beam-limiting device to within 2 percent of the SID when the beam axis is indicated to be perpendicular to the plane of the image receptor.

(3) X-ray systems designed for one image receptor size. Radiographic equipment designed for only one image receptor size at a fixed SID shall be provided with means to limit the field at the plane of the image receptor to dimensions no greater than those of the image receptor, and to align the center of the X-ray field with the center of the image receptor to within 2 percent of the SID, or shall be provided with means to both size and align the X-ray field such that the X-ray field at the plane of the image receptor does not extend beyond any edge of the image receptor.

(4) Systems designed for or provided with special attachments for mammography. Rescinded IAB 4/8/98, effective 7/1/98.

(5) X-ray systems other than those described in 41.1(6)"*a*"(1), (2), and (3), and veterinary systems installed prior to July 1, 1998.

1. Means shall be provided to limit the X-ray field in the plane of the image receptor so that such field does not exceed each dimension of the image receptor by more than 2 percent of the SID when the axis of the X-ray beam is perpendicular to the plane of the image receptor.

2. Means shall be provided to align the center of the X-ray field with the center of the image receptor to within 2 percent of the SID, or means shall be provided to both size and align the X-ray field such that the X-ray field at the plane of the image receptor does not extend beyond any edge of the image receptor. Compliance shall be determined with the axis of the X-ray beam perpendicular to the plane of the image receptor.

3. 41.1(6)"*a*"(5)"1" and "2" may be met with a system that meets the requirements for a general purpose X-ray system as specified in 41.1(6)"*a*"(1) or, when alignment means are also provided, may be met with either:

- An assortment of removable, fixed-aperture, beam-limiting devices sufficient to meet the requirement for each combination of image receptor size and SID for which the unit is designed with each such device having clear and permanent markings to indicate the image receptor size and SID for which it is designed; or
- A beam-limiting device having multiple fixed apertures sufficient to meet the requirement for each combination of image receptor size and SID for which the unit is designed. Permanent, clearly legible markings shall indicate the image receptor size and SID for which each aperture is designed and shall indicate which aperture is in position for use.

b. Radiation exposure control devices.

(1) Timers. Means shall be provided to terminate the exposure at a preset time interval, preset product of current and time, a preset number of pulses, or a preset radiation exposure to the image receptor. In addition, it shall not be possible to make an exposure when the timer is set to a "zero" or "off" position if either position is provided. Except for dental panoramic systems, termination of an exposure shall cause automatic resetting of the timer to its initial setting or to "zero."

(2) X-ray control.

1. Manual exposure control. An X-ray control shall be incorporated into each X-ray system such that an exposure can be terminated by the operator at any time except for exposure of one-half second or less, or during serial radiography when means shall be provided to permit completion of any single exposure of the series in process.

2. Each X-ray control shall be located in such a way as to meet the following requirements: Stationary X-ray systems (except podiatry and veterinary units) shall be required to have the X-ray exposure switch permanently mounted in a protected area so that the operator is required to remain in that protected area during the entire exposure; and mobile and portable X-ray systems which are:

- Used for greater than one week in the same location, i.e., a room or suite, shall meet the requirements of 41.1(6)"*b*"(2)"2"; or
- Used for greater than one hour and less than one week at the same location, i.e., a room or suite, or in a clinical setting for routine extremities only, or where moving the X-ray system from room to room is impractical, shall meet the requirement of the above paragraph or be provided with a 6.5 foot (1.98 m) high protective barrier which is placed at least 2.7 meters (9 feet) from the tube housing assembly.

Stationary podiatric systems which do not meet the above requirements shall be provided with a 9-foot exposure button cord which allows the operator to remain behind a protective barrier during the entire exposure. If the protective barrier is moveable, written procedures must be on file at the facility, which dictate that the operator will remain behind the barrier during the entire exposure.

41.2(19) *Assay of radiopharmaceutical dosages.* A licensee shall:

a. Assay, prior to medical use, the activity of each radiopharmaceutical dosage that contains more than 30 microcuries (1.1 megabecquerels) of a photon-emitting radionuclide;

b. Assay, before medical use, the activity of each radiopharmaceutical dosage of a photon-emitting radionuclide to verify that the dosage does not exceed 30 microcuries (1.1 mBq); and

c. Measure, by direct measurement or by combination of measurements and calculations, the activity of each dosage of an alpha- or beta-emitting radionuclide prior to medical use, except for unit dosages obtained from a manufacturer or preparer licensed pursuant to 641—paragraph 39.4(29)*"j"* or equivalent NRC or Agreement State requirements.

d. Retain a record of the assays required by 41.2(19)*"a"* for three years. To satisfy this requirement, the record shall contain the:

(1) Generic name, trade name, or abbreviation of the radiopharmaceutical, its lot number, and expiration dates and the radionuclide;

(2) Patient's or human research subject's name and identification number if one has been assigned;

(3) Prescribed dosage and activity of the dosage at the time of assay, or a notation that the total activity is less than 30 microcuries (1.1 megabecquerels);

(4) Date and time of the assay and administration; and

(5) Initials of the individual who performed the assay.

41.2(20) *Authorization for calibration and reference sources.* Any person authorized by 41.2(3) for medical use of radioactive material may receive, possess, and use the following radioactive material for check, calibration and reference use:

a. Sealed sources manufactured and distributed by persons specifically licensed pursuant to 641—Chapter 39 or equivalent provisions of the U.S. Nuclear Regulatory Commission, agreement state or licensing state and that do not exceed 15 millicuries (555 MBq) each;

b. Any radioactive material listed in 41.2(31) or 41.2(33) with a half-life of 100 days or less in individual amounts not to exceed 15 millicuries (555 MBq);

c. Any radioactive material listed in 41.2(31) or 41.2(33) with a half-life greater than 100 days in individual amounts not to exceed 200 microcuries (7.4 MBq) each; and

d. Technetium-99m in individual amounts not to exceed 50 millicuries (1.85 GBq).

41.2(21) *Requirements for possession of sealed sources and brachytherapy sources.*

a. A licensee in possession of any sealed source or brachytherapy source shall follow the radiation safety and handling instructions supplied by the manufacturer or equivalent instructions approved by the agency and shall maintain the instructions for the duration of source use in a legible form convenient to users.

b. A licensee in possession of a sealed source shall ensure that:

(1) The source is tested for leakage before its first use unless the licensee has a certificate from the supplier indicating that the source was tested within six months before transfer to the licensee; and

(2) The source is tested for leakage at intervals not to exceed six months or at intervals approved by the agency, another agreement state, a licensing state or the U.S. Nuclear Regulatory Commission.

c. To satisfy the leak test requirements of 41.2(21)*"b,"* the licensee shall ensure that:

(1) Leak tests are capable of detecting the presence of 0.005 microcurie (185 Bq) of radioactive material on the test sample or, in the case of radium, the escape of radon at the rate of 0.001 microcurie (37 Bq) per 24 hours;

(2) Test samples are taken from the source or from the surfaces of the device in which the source is mounted or stored on which radioactive contamination might be expected to accumulate; and

(3) Test samples are taken when the source is in the "off" position.

d. A licensee shall retain leak test records for five years. The records shall contain the model number, and serial number, if assigned, of each source tested, the identity of each source radionuclide and its estimated activity, the measured activity of each test sample expressed in microcuries (becquerels), a description of the method used to measure each test sample, the date of the test, and the signature of the radiation safety officer.

e. If the leak test reveals the presence of 0.005 microcurie (185 Bq) or more of removable contamination, the licensee shall:

(1) Immediately withdraw the sealed source from use and store it in accordance with the requirements of these rules; and

(2) File a report with the agency within five days of receiving the leak test results with the agency describing the equipment involved, the test results, and the action taken.

f. A licensee need not perform a leak test on the following sources:

(1) Sources containing only radioactive material with a half-life of less than 30 days;

(2) Sources containing only radioactive material as a gas;

(3) Sources containing 100 microcuries (3.7 MBq) or less of beta or photon-emitting material or 10 microcuries (370 kBq) or less of alpha-emitting material; [and]

(4) Seeds of iridium-192 encased in nylon ribbon; and

(5) Sources stored and not being used. The licensee shall, however, test each such source for leakage before any use or transfer unless it has been tested for leakage within six months before the date of use or transfer.

g. A licensee in possession of a sealed source or brachytherapy source shall conduct a physical inventory of all such sources at intervals not to exceed three months. The licensee shall retain each inventory record for five years. The inventory records shall contain the model number of each source, and serial number if one has been assigned, the identity of each source radionuclide and its estimated activity, the location of each source, date of the inventory, and the signature of the radiation safety officer.

h. A licensee in possession of a sealed source or brachytherapy source shall survey with a radiation survey instrument at intervals not to exceed three months all areas where such sources are stored. This does not apply to teletherapy sources in teletherapy units or sealed sources in diagnostic devices.

i. A licensee shall retain a record of each survey required in 41.2(21)"*h*" for three years. The record shall include the date of the survey, a sketch of each area that was surveyed, the measured dose rate at several points in each area expressed in millirems (microsieverts) per hour, the model number and serial number of the survey instrument used to make the survey, and the signature of the radiation safety officer.

41.2(22) *Syringe shields.*

a. A licensee shall keep syringes that contain radioactive material to be administered in a radiation shield.

b. A licensee shall require each individual who prepares or administers radiopharmaceuticals to use a syringe radiation shield unless the use of the shield is contraindicated for that patient or human research subject.

41.2(23) *Syringe labels.* Unless utilized immediately, a licensee shall conspicuously label each syringe, or syringe radiation shield that contains a syringe with a radiopharmaceutical, with the radiopharmaceutical name or its abbreviation, the type of diagnostic study or therapy procedure to be performed, or the patient's or human research subject's name.

41.2(24) *Vial shields.* A licensee shall require each individual preparing or handling a vial that contains a radiopharmaceutical to keep the vial in a vial radiation shield.

41.2(25) *Vial shield labels.* A licensee shall conspicuously label each vial radiation shield that contains a vial of a radiopharmaceutical with the radiopharmaceutical name or its abbreviation.

41.2(26) *Surveys for contamination and ambient radiation dose rate.*

a. A licensee shall survey with a radiation detection survey instrument at the end of each day of use all areas where radiopharmaceuticals are routinely prepared for use or administered.

b. A licensee shall survey with a radiation detection survey instrument at least once each week all areas where radiopharmaceuticals or radioactive wastes are stored.

c. A licensee shall conduct the surveys required by 41.2(26)*"a"* and *"b"* so as to be able to measure dose rates as low as 0.1 millirem (1 μSv) per hour.

d. A licensee shall establish dose rate action levels for the surveys required by 41.2(26)*"a"* and *"b"* and shall require that the individual performing the survey immediately notify the radiation safety officer if a dose rate exceeds an action level.

e. A licensee shall survey for removable contamination each day of use all areas where radiopharmaceuticals are routinely prepared for use or administered and each week where radioactive materials are stored.

f. A licensee shall conduct the surveys required by 41.2(26)*"e"* so as to be able to detect contamination on each wipe sample of 2000 disintegrations per minute (33.3 Bq).

g. A licensee shall establish removable contamination action levels for the surveys required by 41.2(26)*"e"* and shall require that the individual performing the survey immediately notify the radiation safety officer if contamination exceeds action levels.

h. A licensee shall retain a record of each survey required by 41.2(26)*"a," "b,"* and *"e"* for two years. The record must include the date of the survey, a sketch of each area surveyed, action levels established for each area, the measured dose rate at several points in each area expressed in millirems (microsieverts) per hour or the removable contamination in each area expressed in disintegrations per minute (becquerels) per 100 square centimeters, the serial number and the model number of the instrument used to make the survey or analyze the samples, and the initials of the individual who performed the survey.

41.2(27) *Release of patients or human research subjects containing radiopharmaceuticals or permanent implants.*

a. The licensee may authorize the release from its control of any individual who has been administered radiopharmaceuticals or permanent implants containing radioactive material if the total effective dose equivalent to any other individual from exposure to the released individual is not likely to exceed 0.5 rem (5 mSv).

b. The licensee shall provide the released individual with instructions, including written instructions, on actions recommended to maintain doses to other individuals as low as is reasonably achievable if the total effective dose equivalent to any other individual is likely to exceed 0.1 rem (1 mSv). If the dose to a breast-feeding infant or child could exceed 0.1 rem (1 mSv) assuming there were no interruption of breast feeding, the instructions shall also include:

(1) Guidance on the interruption or discontinuation of breast feeding, and

(2) Information on the consequences of failure to follow the guidance.

c. The licensee shall maintain a record of the basis for authorizing the release of an individual, for three years after the date of release, if the total effective dose equivalent is calculated by:

(1) Using the retained activity rather than the activity administered,

(2) Using an occupancy factor less than 0.25 at 1 meter,

(3) Using the biological or effective half-life, or

(4) Considering the shielding by tissue.

d. The licensee shall maintain a record for three years after the date of release that instructions were provided to a breast-feeding woman if the radiation dose to the infant or child from continued breast feeding could result in a total effective dose equivalent exceeding 0.5 rem (5 mSv). IDPH Regulatory Guide, Release of Patients Administered Radioactive Materials describes methods for calculating doses to other individuals and contains tables of activities not likely to cause doses exceeding 0.5 rem (5 mSv).

41.2(28) *Mobile nuclear medicine service technical requirements.* A licensee providing mobile nuclear medicine service shall:

a. Transport to each address of use only syringes or vials containing prepared radiopharmaceuticals or radiopharmaceuticals that are intended for reconstitution of radiopharmaceutical kits;

b. Bring into each location of use all radioactive material to be used and, before leaving, remove all unused radioactive material and associated radioactive waste;

c. Secure or keep under constant surveillance and immediate control all radioactive material when in transit or at a location of use;

d. Check survey instruments and dose calibrators as required in 41.2(17)*"b"*(1)*"d"* and *"e"* and 41.2(18)*"d"* and check all other transported equipment for proper function before medical use at each location of use;

e. Carry a calibrated survey meter in each vehicle that is being used to transport radioactive material and, before leaving a client location of use, survey all areas of radiopharmaceutical use with a radiation detection survey instrument to ensure that all radiopharmaceuticals and all associated radioactive waste have been removed; and

f. Retain a record of each survey required by 41.2(28)*"e"* for three years. The record must include the date of the survey, a plan of each area that was surveyed, the measured dose rate at several points in each area of use expressed in millirems (microsieverts) per hour, the model and serial number of the instrument used to make the survey, and the initials of the individual who performed the survey.

41.2(29) *Storage of volatiles and gases.*

a. A licensee shall store volatile radiopharmaceuticals and radioactive gases in the shippers' radiation shield and container.

b. A licensee shall store and use a multidose container in a properly functioning fume hood.

41.2(30) *Decay-in-storage.*

a. A licensee may hold radioactive material with half-lives of less than 65 days, except for Cobalt-57 for decay-in-storage before disposal in ordinary trash and is exempt from the requirements of 641—subrule 40.70(1) if the licensee:

(1) Holds radioactive material for decay a minimum of ten half-lives;

(2) Monitors radioactive material at the container surface before disposal as ordinary trash and determines that its radioactivity cannot be distinguished from the background radiation level with a radiation detection survey instrument set on its most sensitive scale and with no interposed shielding;

(3) Removes or obliterates all radiation labels; and

(4) Separates and monitors each generator column individually with all radiation shielding removed to ensure that its contents have decayed to background radiation level before disposal.

b. For radioactive material disposed in accordance with 41.2(30)*"a,"* the licensee shall retain a record of each disposal for three years. The record must include the date of the disposal, the date on which the radioactive material was placed in storage, the radionuclides disposed, the model and serial number of the survey instrument used, the background dose rate, the radiation dose rate measured at the surface of each waste container, and the name of the individual who performed the disposal.

41.2(31) *Use of radiopharmaceuticals for uptake, dilution, or excretion studies.* A licensee may use any radioactive material in a radiopharmaceutical for a diagnostic use involving measurements of uptake, dilution, or excretion for which the Food and Drug Administration (FDA) has a "Notice of Claimed Investigational Exemption for a New Drug" (IND) or approved a "New Drug Application" (NDA).

41.2(32) *Possession of survey instrument.* A licensee authorized to use radioactive material for uptake, dilution, and excretion studies shall possess a portable radiation detection survey instrument capable of detecting dose rates over the range 0.1 millirem (1.0 μSv) per hour to 50 millirems (500 μSv) per hour. The instrument shall be operable and calibrated in accordance with 41.2(18).

d. To satisfy the requirement for supervised work experience in 41.3(4)*"b"* above, training shall be under the supervision of an authorized user and shall include:

(1) Reviewing the full calibration measurements and periodic quality assurance checks;

(2) Evaluating prepared treatment plans and calculation of treatment times/patient treatment settings;

(3) Using administrative controls to prevent misadministrations;

(4) Implementing emergency procedures to be followed in the event of the abnormal operation of an external beam radiation therapy unit or console; and

(5) Checking and using radiation survey meters.

e. To satisfy the requirement for a period of supervised clinical experience, training shall include one year in a formal training program approved by the Residency Review Committee for Radiology of the Accreditation Council for Graduate Medical Education or the Committee on Postdoctoral Training of the American Osteopathic Association and an additional two years of clinical experience in therapeutic radiology under the supervision of an authorized user. The supervised clinical experience shall include:

(1) Examining individuals and reviewing their case histories to determine their suitability for external beam radiation therapy treatment, and any limitations/contraindications;

(2) Selecting proper dose and how it is to be administered;

(3) Calculating the external beam radiation therapy doses and collaborating with the authorized user in the review of patients' progress; consideration of the need to modify originally prescribed doses or treatment plans as warranted by patients' reaction to radiation; and

(4) Postadministration follow-up and review of case histories.

f. Notwithstanding the requirements of 41.3(4)*"b,"* the registrant for any therapeutic radiation machine subject to 41.3(7) may also submit the training of the prospective authorized user physician for agency review.

41.3(6) Training for radiation therapy physicist. The registrant for any therapeutic radiation machine subject to 41.3(17) or (18) shall require the radiation therapy physicist to:

a. Be registered with the agency, under the provisions of 641—subrule 39.3(3) of these regulations, as a provider of radiation services in the area of calibration and compliance surveys of external beam radiation therapy units; and

b. Be certified by the American Board of Radiology in:

(1) Therapeutic radiological physics; or

(2) Roentgen-ray and gamma-ray physics; or

(3) X-ray and radium physics; or

(4) Radiological physics; or

c. Be certified by the American Board of Medical Physics in radiation oncology physics; or

d. Be certified by the Canadian College of Medical Physics; or

e. Hold a master's or doctorate degree in physics, biophysics, radiological physics, or health physics, and have completed one year of full-time training in therapeutic radiological physics and also one year of full-time work experience under the supervision of a radiation therapy physicist at a medical institution. To meet this requirement, the individual shall have performed the tasks listed in 41.3(16)*"a"*(1), 41.3(17)*"c,"* 41.3(17)*"c"*(5), 41.3(18)*"e,"* and 41.3(18)*"f"* under the supervision of a radiation therapy physicist during the year of work experience.

f. Notwithstanding the provisions of 41.3(6)*"e,"* certification pursuant to 41.3(6)*"b,"* 41.3(6)*"c"* or 41.3(6)*"d"* shall be required on or before December 31, 1999, for all persons currently qualifying as a radiation therapy physicist pursuant to 41.3(6)*"e."*

41.3(7) Qualifications of operators.

a. Individuals who will be operating a therapeutic radiation machine for medical use shall be adequately instructed in the safe operating procedures and be competent in the safe use of the equipment in accordance with 641—Chapter 42 as applicable.

b. Each operator's permit to practice under 641—Chapter 42 shall be posted in the immediate vicinity of the general work area and visible to the public.

41.3(8) Written safety procedures and rules shall be developed by a radiation therapy physicist and shall be available in the control area of a therapeutic radiation machine, including any restrictions required for the safe operation of the particular therapeutic radiation machine.

41.3(9) Individuals shall not be exposed to the useful beam except for medical therapy purposes and unless such exposure has been ordered in writing by a licensed practitioner of the healing arts. This provision specifically prohibits deliberate exposure of an individual for training, demonstration or other non-healing arts purposes.

41.3(10) Records of authorized users. Notwithstanding the provisions of 41.3(4)"*g,*" a registrant may permit any physician to act as an authorized user under the following conditions:

a. The authorized user has the prior written permission of the registrant's management if the use occurs on behalf of an institution, and

b. The registrant maintains copies of all records specified in 41.3(5) for five years from the date of the last visit.

41.3(11) Information and maintenance record and associated information. The registrant shall maintain the following information for each therapeutic radiation machine for inspection by the agency:

a. Report of acceptance testing;

b. Records of all surveys, calibrations, and periodic quality assurance checks of the therapeutic radiation machine required by 41.3(136C), as well as the name(s) of person(s) who performed such activities;

c. Records of maintenance or modifications, or both, performed on the therapeutic radiation machine after July 9, 1997, as well as the name(s) of person(s) who performed such services;

d. Signature of person authorizing the return of therapeutic radiation machine to clinical use after service, repair, or upgrade.

41.3(12) Records retention. All records required by 641—41.3(136C) shall be retained until disposal is authorized by the agency unless another retention period is specifically authorized in 41.3(136C).

41.3(13) Form of records. Each record required by 41.3(136C) shall be legible throughout the specified retention period. The record shall be the original or a reproduced copy or microfilm, provided that the copy or microfilm is authenticated by authorized personnel and that the microfilm is capable of producing a clear copy throughout the required retention period, or the record may also be stored in electronic media with the capability for producing legible, accurate, and complete records during the required retention period. Records, such as letters, drawings, and specifications, shall include all pertinent information, such as stamps, initials, and signatures. The registrant shall maintain adequate safeguards against tampering with and loss of records.

(10) Multiple tubes. When a control panel may energize more than one X-ray tube:

1. It shall be possible to activate only one X-ray tube at any time;
2. There shall be an indication at the control panel identifying which X-ray tube is activated; and
3. There shall be an indication at the tube housing assembly when that tube is energized.

(11) Target-to-skin distance (TSD). There shall be a means of determining the central axis TSD to within one centimeter and of reproducing this measurement to within two millimeters thereafter.

(12) Shutters. Unless it is possible to bring the X-ray output to the prescribed exposure parameters within five seconds after the X-ray "ON" switch is energized, the beam shall be attenuated by a shutter(s) having a lead equivalency not less than that of the tube housing assembly. In addition, after the unit is at operating parameters, the shutter(s) shall be controlled by the operator from the control panel. An indication of shutter position shall appear at the control panel.

(13) Low filtration X-ray tubes. Each therapeutic radiation machine equipped with a beryllium or other low-filtration window shall be clearly labeled as such upon the tube housing assembly and shall be provided with a permanent warning device on the control panel that is activated when no additional filtration is present, to indicate that the dose rate is very high.

b. Facility design requirements for therapeutic radiation machines capable of operating in the range 50 kV to 500 kV. In addition to shielding adequate to meet requirements of 41.3(8), the treatment room shall meet the following design requirements:

(1) Aural communication. Provision shall be made for continuous two-way aural communication between the patient and the operator at the control panel.

(2) Viewing systems. Provision shall be made to permit continuous observation of the patient during irradiation and the viewing system shall be so located that the operator can observe the patient from the control panel. The therapeutic radiation machine shall not be used for patient irradiation unless at least one viewing system is operational.

(3) Additional requirements. Treatment rooms which contain a therapeutic radiation machine capable of operating above 150 kV shall meet the following additional requirements:

1. All protective barriers shall be fixed except for entrance doors or beam interceptors;
2. The control panel shall be located outside the treatment room or in a totally enclosed booth, which has a ceiling, inside the room;
3. Interlocks shall be provided such that all entrance doors, including doors to any interior booths, shall be closed before treatment can be initiated or continued. If the radiation beam is interrupted by any door opening, it shall not be possible to restore the machine to operation without closing the door and reinitiating irradiation by manual action at the control panel; and
4. When any door referred to in 41.3(17)*"b"*(3)"3" is opened while the radiation machine is activated, the air kerma rate at a distance of one meter from the source shall be reduced to less than 1 mGy (100 mrad) per hour.

c. Full calibration measurements.

(1) Full calibration of a therapeutic radiation machine subject to 41.3(17) shall be performed by, or under the direct supervision of, a radiation therapy physicist:

1. Before the first medical use following installation or reinstallation of the therapeutic radiation machine;
2. At intervals not exceeding one year; and

3. Before medical use under the following conditions:

• Whenever quality assurance check measurements indicate that the radiation output differs by more than 5 percent from the value obtained at the last full calibration and the difference cannot be reconciled; and

• Following any component replacement, major repair, or modification of components that could significantly affect the characteristics of the radiation beam.

4. Notwithstanding the requirements of 41.3(17)*"c"*(1):

• Full calibration of therapeutic radiation machines with multienergy capabilities is required only for those modes or energies that are not within their acceptable range; and

• If the repair, replacement or modification does not affect all energies, full calibration shall be performed on the affected energy that is in most frequent clinical use at the facility. The remaining energies may be validated with quality assurance check procedures against the criteria in 41.3(17)*"b"*(3).

(2) To satisfy the requirement of 41.3(17)*"c"*(1), full calibration shall include all measurements recommended for annual calibration by NCRP Report 69, "Dosimetry of X-ray and Gamma Ray Beams for Radiation Therapy in the Energy Range 10 keV to 50 MeV" (1981).

(3) The registrant shall maintain a record of each calibration for the duration of the registration. The record shall include the date of the calibration, the manufacturer's name, model number, and serial number for both the therapeutic radiation machine and the X-ray tube, the model numbers and serial numbers of the instruments used to calibrate the therapeutic radiation machine, and the signature of the radiation therapy physicist responsible for performing the calibration.

d. Periodic quality assurance checks.

(1) Periodic quality assurance checks shall be performed on therapeutic radiation machines, subject to 41.3(17), which are capable of operation at greater than or equal to 50 kV.

(2) To satisfy the requirement of 41.3(17)*"d"*(1), quality assurance checks shall meet the following requirements:

1. The registrant shall perform quality assurance checks in accordance with written procedures established by the radiation therapy physicist; and

2. The quality assurance check procedures shall specify the frequency at which tests or measurements are to be performed. The quality assurance check procedures shall specify that the quality assurance check shall be performed during the calibration specified in 41.3(17)*"c"*(1). The acceptable tolerance for each parameter measured in the quality assurance check, when compared to the value for that parameter determined in the calibration specified in 41.3(17)*"c"*(1), shall be stated.

(3) The cause for a parameter exceeding a tolerance set by the radiation therapy physicist shall be investigated and corrected before the system is used for patient or human research subject irradiation;

(4) Whenever a quality assurance check indicates a significant change in the operating characteristics of a system, as specified in the radiation therapy physicist's quality assurance check procedures, the system shall be recalibrated as required in 41.3(17)*"c"*(1);

(5) The registrant shall use the dosimetry system described in 41.3(16)*"c"*(2) to make the quality assurance check required in 41.3(17)*"d"*;

(6) The registrant shall have the radiation therapy physicist review and sign the results of each radiation output quality assurance check within one month of test completion;

(7) The registrant shall ensure that safety quality assurance checks of therapeutic radiation machines subject to 41.3(17) are performed at intervals not to exceed one month;

3. Provide an indication of whether radiation is being produced; and

4. Include an access control (locking) device which will prevent unauthorized use of the therapeutic radiation machine.

(3) Viewing systems. Windows, mirrors, closed-circuit television or an equivalent viewing system shall be provided to permit continuous observation of the patient following positioning and during irradiation and shall be so located that the operator may observe the patient from the treatment control panel. The therapeutic radiation machine shall not be used for patient irradiation unless at least one viewing system is operational.

(4) Aural communications. Provision shall be made for continuous two-way aural communication between the patient and the operator at the control panel. The therapeutic radiation machine shall not be used for irradiation of patients unless continuous two-way aural communication is possible.

(5) Room entrances. Treatment room entrances shall be provided with warning lights in a readily observable position near the outside of all access doors, which will indicate when the useful beam is "ON" and when it is "OFF".

(6) Entrance interlocks. Interlocks shall be provided such that all access controls are activated before treatment can be initiated or continued. If the radiation beam is interrupted by any access control, it shall not be possible to restore the machine to operation without resetting the access control and reinitiating irradiation by manual action at the control panel.

(7) Beam interceptor interlocks. If the shielding material in any protective barrier requires the presence of a beam interceptor to ensure compliance with 641—paragraphs 40.26(1)*"a"* and *"b,"* interlocks shall be provided to prevent the production of radiation, unless the beam interceptor is in place, whenever the useful beam is directed at the designated barrier(s).

(8) Emergency cutoff switches. At least one emergency power cutoff switch shall be located in the radiation therapy room and shall terminate all equipment electrical power including radiation and mechanical motion. This switch is in addition to the termination switch required by 41.3(18)*"a"*(11). All emergency power cutoff switches shall include a manual reset so that the therapeutic radiation machine cannot be restarted from the unit's control console without resetting the emergency cutoff switch.

(9) Safety interlocks. All safety interlocks shall be designed so that any defect or component failure in the safety interlock system prevents or terminates operation of the therapeutic radiation machine.

(10) Surveys for residual radiation. Surveys for residual activity shall be conducted on all therapeutic radiation machines capable of generating photon and electron energies above 10 MV prior to machining, removing, or working on therapeutic radiation machine components which may have become activated due to photoneutron production.

(11) Possession of survey instrument(s). Each facility location authorized to use a therapeutic radiation machine in accordance with 41.3(18) shall have at its disposal appropriately calibrated portable monitoring equipment. As a minimum, such equipment shall include a portable radiation measurement survey instrument capable of measuring dose rates over the range 1 mrem (10 μSv) per hour to 1000 mrem (10 mSv) per hour. The survey instrument(s) shall be operable and calibrated at intervals not to exceed 12 months for the radiation measured.

c. Radiation therapy physicist support.

(1) The services of a radiation therapy physicist shall be required in facilities having therapeutic radiation machines with energies of 500 kV and above. The radiation therapy physicist shall be responsible for:

1. Full calibration(s) required by 41.3(18)*"e"* and protection surveys required by 41.3(16)*"a"*;

2. Supervision and review of dosimetry;

3. Beam data acquisition and transfer for computerized dosimetry, and supervision of its use;

4. Quality assurance, including quality assurance check review required by 41.3(18)*"f"*(5) of these regulations;

5. Consultation with the authorized user in treatment planning, as needed; and

6. Performing calculations/assessments regarding misadministrations.

(2) If the radiation therapy physicist is not a full-time employee of the registrant, the operating procedures required by 41.3(18)*"d"* shall also specifically address how the radiation therapy physicist is to be contacted for problems or emergencies, as well as the specific actions, if any, to be taken until the radiation therapy physicist can be contacted.

d. Operating procedures.

(1) No individual, other than the patient, shall be in the treatment room during treatment or during any irradiation for testing or calibration purposes;

(2) Therapeutic radiation machines shall not be made available for medical use unless the requirements of 41.3(16)*"a,"* 41.3(18)*"e,"* and 41.3(18)*"f"* have been met;

(3) Therapeutic radiation machines, when not in operation, shall be secured to prevent unauthorized use;

(4) When adjustable beam-limiting devices are used, the position and shape of the radiation field shall be indicated by a light field;

(5) If a patient must be held in position during treatment, mechanical supporting or restraining devices shall be used; and

(6) A copy of the current operating and emergency procedures shall be maintained at the therapeutic radiation machine control console.

e. Full calibration measurements.

(1) Full calibration of a therapeutic radiation machine subject to 41.3(18) shall be performed by, or under the direct supervision of, a radiation therapy physicist:

1. Before the first medical use following installation or reinstallation of the therapeutic radiation machine;

2. At intervals not to exceed 12 months; and

3. Before medical use under the following conditions:

• Whenever quality assurance check measurements indicate that the radiation output differs by more than 5 percent from the value obtained at the last full calibration and the difference cannot be reconciled; and

• Following any component replacement, major repair, or modification of components that could significantly affect the characteristics of the radiation beam.

4. Notwithstanding the requirements of 41.3(18)*"e"*(1)"3":

• Full calibration of therapeutic radiation machines with multienergy or multimode capabilities is required only for those modes or energies that are not within their acceptable range; and

• If the repair, replacement or modification does not affect all modes or energies, full calibration shall be performed on the effected mode/energy that is in most frequent clinical use at the facility. The remaining energies/modes may be validated with quality assurance check procedures against the criteria in 41.3(18)*"e"*(1)"3."

(2) To satisfy the requirement of 41.3(18)*"e"*(1), full calibration shall include all measurements required for annual calibration by Appendix D of 641—Chapter 41.

(3) The registrant shall use the dosimetry system described in 41.3(16)*"c"* to measure the radiation output for one set of exposure conditions. The remaining radiation measurements required in 41.3(18)*"e"*(2) may then be made using a dosimetry system that indicates relative dose rates; and

(4) The registrant shall maintain a record of each calibration for the duration of the registration. The record shall include the date of the calibration, the manufacturer's name, model number, and serial number for the therapeutic radiation machine, the model numbers and serial numbers of the instruments used to calibrate the therapeutic radiation machine, and the signature of the radiation therapy physicist responsible for performing the calibration.

f. Periodic quality assurance checks.

(1) Periodic quality assurance checks shall be performed on all therapeutic radiation machines subject to 41.3(18) at intervals not to exceed one week;

(2) To satisfy the requirement of 41.3(18)*"f"*(1), quality assurance checks shall include determination of central axis radiation output and a representative sampling of periodic quality assurance checks contained in Appendix D of 641—Chapter 41. Representative sampling shall include all referenced periodic quality assurance checks at intervals not to exceed 12 consecutive calendar months;

(3) The registrant shall use a dosimetry system which has been compared within the previous 12 months with the dosimetry system described in 41.3(16)*"c"*(1) to make the periodic quality assurance checks required in 41.3(18)*"f"*(2);

(4) The registrant shall perform periodic quality assurance checks required by 41.3(18)*"f"*(1) in accordance with procedures established by the radiation therapy physicist;

(5) The registrant shall review the results of each periodic radiation output check according to the following procedures:

1. The authorized user and radiation therapy physicist shall be immediately notified if any parameter is not within its acceptable tolerance. The therapeutic radiation machine shall not be made available for subsequent medical use until the radiation therapy physicist has determined that all parameters are within their acceptable tolerances;

2. If all quality assurance check parameters appear to be within their acceptable range, the quality assurance check shall be reviewed and signed by either the authorized user or radiation therapy physicist within two weeks of treatment; and

3. The radiation therapy physicist shall review and sign the results of each radiation output quality assurance check within two weeks of completion.

(6) Therapeutic radiation machines subject to 41.3(18) shall have safety quality assurance checks of each external beam radiation therapy machine performed at intervals not to exceed one week;

(7) To satisfy the requirement of 41.3(18)*"f"*(6), safety quality assurance checks shall ensure proper operation of:

1. Electrical interlocks at each external beam radiation therapy room entrance;
2. Proper operation of the "BEAM-ON," interrupt and termination switches;
3. Beam condition indicator lights on the access doors, control console, and in the radiation therapy room;
4. Viewing systems;
5. Aural systems;
6. Electrically operated treatment room door(s) from inside and outside the treatment room;

(8) Emergency power cutoff switches shall be checked for proper operation at intervals not to exceed three months. If more than one emergency power cutoff switch is installed and not all switches are tested at once, each switch shall be tested on a rotating basis. Safety quality assurance checks of the emergency power cutoff switches may be conducted at the end of the treatment day in order to minimize possible stability problems with the therapeutic radiation machine;

(9) The registrant shall promptly repair any system identified in 41.3(18)*"f"*(7) that is not operating properly; and

(10) The registrant shall maintain a record of each quality assurance check required by 41.3(18)"*f*"(1) and 41.3(18)"*f*"(7) for three years. The record shall include the date of the quality assurance check, the manufacturer's name, model number, and serial number for the therapeutic radiation machine, the manufacturer's name, model number and serial number of the instrument(s) used to measure the radiation output of the therapeutic radiation machine, and the signature of the individual who performed the periodic quality assurance check.

41.3(19) Shielding and safety design requirements.

a. Each therapeutic radiation machine subject to 41.3(17) or 41.3(18) shall be provided with such primary or secondary barriers as are necessary to ensure compliance with 641—40.15(136C) and 641—40.26(136C).

b. Facility design information for all new installations of a therapeutic radiation machine or installations of a therapeutic radiation machine of higher energy into a room not previously approved for that energy shall be submitted for agency approval prior to actual installation of the therapeutic radiation machine. The minimum facility design information that must be submitted is contained in Appendix E of 641—Chapter 41.

641—41.4(136C) Radiation safety requirements for analytical X-ray equipment. Rescinded IAB 4/8/98, effective 7/1/98.

641—41.5(136C) Radiation safety requirements for wireline service operations and subsurface tracer studies. Rescinded IAB 4/8/98, effective 7/1/98.

641—41.6(136C) X-ray machines used for screening and diagnostic mammography.

41.6(1) *Definitions.* In addition to the definitions provided in 41.1(136C), the following definitions shall be applicable to this rule.

"Artifact" means a substance or structure not naturally present in living tissue but of which an authentic image appears in a radiograph.

"Automatic exposure control systems" means automatic exposure control systems, often referred to as phototimers, which are designed to automatically determine and provide the exposure needed to produce an adequate density image by sampling the X-ray intensity after passage through the patient and image receptor.

"Average glandular dose" means the energy deposited per unit mass of glandular tissue averaged over all the glandular tissue in the breast, calculated from values of entrance exposure in air, the X-ray beam quality (half-value layer), and compressed breast thickness. The maximum average glandular dose should be 6 milliGray (0.6 rad) or less for a 2-view examination of the breast. See also: "Dose."

"Base density" means the optical density due to the supporting base of the film alone. The base density of a film is the optical density that would result if an unexposed film were processed through the fixer, wash, and dryer, without first passing through the developer.

"Base plus fog density" means the optical density of a film due to its base density plus any action of the developer on the unexposed silver halide crystals. The base plus fog density can be measured by processing an unexposed film through the entire processing cycle and measuring the resultant optical density.

(2) If the software used to generate shielding requirements is not in the open literature, submit quality control sample calculations to verify the result obtained with the software.

III. Therapeutic radiation machines over 150 kV.

In addition to the requirements listed in Section I above, therapeutic radiation machine facilities which produce photons or electrons with a maximum energy in excess of 150 kV or electrons shall submit shielding plans which contain, as a minimum, the following additional information:

A. Equipment specifications including the manufacturer and model number of the therapeutic radiation machine, and gray (rad) at the isocenter and the energy(s) and type(s) of radiation produced (i.e., photon, electron). The target to isocenter distance shall be specified.

B. Maximum design workload for the facility including total weekly radiation output (expressed in gray (rad) at one meter), total beam-on time per day or week, the average treatment time per patient, along with the anticipated number of patients to be treated per day or week.

C. Facility blueprint/drawing (including both floor plan and elevation views) indicating relative orientation of the therapeutic radiation machine, scale (0.25 inch = 1 foot is typical), type(s), thickness and minimum density of shielding material(s), direction of north, the locations and size of all penetrations through each shielding barrier (ceiling, walls and floor), as well as details of the door(s) and maze.

D. The structural composition and thickness or concrete equivalent of all walls, doors, partitions, floor, and ceiling of the room(s) concerned.

E. The type of occupancy of all adjacent areas inclusive of space above and below the room(s) concerned. If there is an exterior wall, show distance to the closest area(s) where it is likely that individuals may be present.

F. Description of all assumptions that were in shielding calculations including, but not limited to, design energy (i.e., room may be designed for 6 MV unit although only a 4 MV unit is currently proposed), workload, presence of integral beam-stop in unit, occupancy and use(s) of adjacent areas, fraction of time that useful beam will intercept each permanent barrier (walls, floor and ceiling) and "allowed" radiation exposure in both restricted and unrestricted areas.

G. At least one example calculation which shows the methodology used to determine the amount of shielding required for each physical condition (i.e., primary and secondary leakage barriers, restricted and unrestricted areas, small angle scatter, entry door(s) and maze) and shielding material in the facility.

(1) If commercial software is used to generate shielding requirements, also identify the software used and the version/revision date.

(2) If the software used to generate shielding requirements is not in the open literature, submit quality control sample calculations to verify the result obtained with the software.

IV. Neutron shielding.

In addition to the requirements listed in Section III above, therapeutic radiation machine facilities which are capable of operating above 10 MV shall submit shielding plans which contain, as a minimum, the following additional information:

A. The structural composition, thickness, minimum density and location of all neutron shielding material.

B. Description of all assumptions that were used in neutron shielding calculations including, but not limited to, neutron spectra as a function of energy, neutron fluency rate, absorbed dose and dose equivalent (due to neutrons) in both restricted and unrestricted areas.

C. At least one example calculation which shows the methodology used to determine the amount of neutron shielding required for each physical condition (i.e., restricted and unrestricted areas, entry door(s) and maze) and neutron shielding material utilized in the facility.

(1) If commercial software is used to generate shielding requirements, also identify the software used and the version/revision date.

(2) If the software used to generate shielding requirements is not in the open literature, submit quality control sample calculations to verify the result obtained with the software.

D. The method(s) and instrumentation which will be used to verify the adequacy of all neutron shielding installed in the facility.

V. References.

A. NCRP Report 49, "Structural Shielding Design and Evaluation for Medical Use of X-Rays and Gamma Rays of Energies Up to 10 MeV" (1976).

B. NCRP Report 51, "Radiation Protection Design Guidelines for 0.1-100 MeV Particle Accelerator Facilities" (1977).

C. NCRP Report 79, "Neutron Contamination from Medical Electron Accelerator" (1984).

These rules are intended to implement Iowa Code chapter 136C.

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◊Two ARCs

CHAPTER 42
MINIMUM CERTIFICATION STANDARDS FOR DIAGNOSTIC RADIOGRAPHERS, NUCLEAR MEDICINE TECHNOLOGISTS, AND RADIATION THERAPISTS

[Prior to 12/2/87, Health Department[470] Ch 42]

641—42.1(136C) Purpose and scope.

42.1(1) *Applicability.* Except as otherwise specifically provided, these rules apply to all individuals who operate as a diagnostic radiographer, nuclear medicine technologist, or radiation therapist as defined below.

The provisions of this chapter are in addition to, and not in substitution for, any other applicable portions of 641—Chapters 38 to 41.

42.1(2) *Definitions.* For the purpose of this chapter, the definitions of 641—Chapter 38 may also apply.

"Approved course of study" means a curriculum and associated training and testing materials which the department has determined are adequate to train students to meet the requirements of this chapter.

"Chest" is defined as the lung fields including the cardiac shadow, as taught in the approved limited radiography curriculum. Radiography of the shoulder, clavicle, scapula, ribs, thoracic spine and sternum for diagnostic evaluation of these body structures is not allowed under this body part classification for limited diagnostic radiographers.

"Clinical education" means the direct participation of the student in completion of diagnostic studies.

"Continuing education course" means a planned program of continuing education having sufficient scope and depth of a given subject area directly related to the field to form an educational unit that is planned, coordinated, administered, and evaluated in terms of educational objects and provides a defined level of knowledge or specific performance skill. This concept involves the organized presentation of a body of knowledge so that the subject matter is comprehensively covered in sufficient detail to meet the educational objectives of the course.

"Contrast media" means material intentionally administered to the human body to define a part(s) which is not normally visualized radiographically.

"Diagnostic radiographer" means an individual, other than a licensed practitioner or dental radiographer, who applies X-radiation to the human body for diagnostic purposes while under the supervision of a licensed practitioner. The types are as follows:

1. "General diagnostic radiographer" applies X-radiation to any part of the human body.
2. "Limited diagnostic radiographer" applies X-radiation to not more than two body parts. Chest and extremity radiographic examinations are considered as one body part.
3. "Limited in-hospital radiographer" applies X-radiation as permitted in 42.3(1)*"c."*

"Diagnostic radiography" means the science and art of applying X-radiation to human beings for diagnostic purposes other than in dental radiography. It shall include adjustment or manipulation of X-ray equipment and appurtenances including image receptors, positioning of patients and processing of films so as to materially affect the radiation exposure of patients.

"In vitro" means a procedure in which the radioactive material is not administered to a human being.

"In vivo" means a procedure in which the radioactive material is administered to a human being.

"Lower extremities" refers to those body parts from the distal phalanges of the foot to the head of the femur and its articulation with the pelvic girdle as taught in the approved limited radiographer curriculum. True hip radiographs are prohibited under this category for limited diagnostic radiographers.

"Nuclear medicine procedure" means any procedure utilizing radiopharmaceuticals for diagnosis or treatment of disease in human beings and any duties performed by the technologist during sealed source procedures and includes, but is not limited to:

1. Administration of any radiopharmaceutical to human beings for diagnostic purposes.
2. Administration of radioactive material to human beings for therapeutic purposes.
3. Use of radioactive material for diagnostic purposes involving transmission or excitation.
4. Quality control and quality assurance.

"Nuclear medicine technologist" means an individual, other than a licensed physician, who performs nuclear medicine procedures while under the supervision of a physician who is authorized by NRC or Iowa to possess and use radioactive materials.

"Quality assurance" means all aspects of a nuclear medicine program that ensure the quality of imaging and therapy procedures.

"Quality control" means specific tests and measurements that ensure the purity, quantity, product identity, and biologic safety of radiopharmaceuticals.

"Radiation therapist" means a person, other than a licensed physician, who performs radiation therapy technology under the supervision of a radiation oncologist.

"Radiation therapy technology" means the science and art of performing simulation radiography or applying ionizing radiation emitted from X-ray machines, particle accelerators, or radioactive materials to human beings for therapeutic purposes.

"Radionuclide" means a radioactive element or a radioactive isotope.

"Radiopharmaceutical" means a substance defined by the Food and Drug Administration as a radioactive drug.

"Simulation radiography" means the science and art of applying X-radiation to human beings for the purpose of localizing treatment fields and isotopes and for treatment planning.

"Simulation therapist" means an individual, other than a physician, who applies X-radiation to human beings for the purpose of localizing treatment fields and isotopes and for treatment planning.

"Sinus" as used in the limited radiographer curriculum refers to the paranasal sinuses only.

"Special category course" means those programs still related to health care but indirectly related to diagnostic radiography, nuclear medicine technology, or radiation therapy. Such programs are: venipuncture, CPR, educator's programs, management programs, tumor boards, equipment training, personal improvement, for example.

"Spine" refers to the cervical, thoracic (dorsal), lumbar vertebrae and their articulations. It may also include the sacrum or coccyx and the sacral articulation with the pelvic girdle. True pelvis radiographs performed with the image receptor positioned perpendicular to the long axis of the torso are prohibited under this limited category. Lumbo-pelvic or full spine radiography may be performed if the long axis of the image receptor is positioned parallel with the long axis of the spine as taught in the approved limited radiographer curriculum.

"Student" means an individual enrolled in and participating in an approved course of study.

"Supervision" means responsibility for and control of quality, radiation safety and protection, and technical aspects of the application of ionizing radiation to human beings for diagnostic or therapeutic purposes.

"Upper extremities" refers to those body parts from the distal phalanges of the hand to the head of the humerus. These projections may include the acromioclavicular or glenoid-humeral areas as taught in the approved limited radiographer curriculum. True shoulder radiography that includes both distal and proximal ends of the clavicle is prohibited under this category for limited diagnostic radiographers.

"X-radiation" means penetrating electromagnetic radiation with energy greater than 0.1 kV produced by bombarding a metallic target with fast electrons in a high vacuum.

641—42.2(136C) General requirements.

42.2(1) *Minimum eligibility requirements.*

a. Graduation from high school or its equivalent.

b. Attainment of 18 years of age.

c. Ability to adequately perform necessary duties without constituting a hazard to the health or safety of patients or operators.

42.2(2) *Disciplinary grounds and actions.* The following shall be grounds for disciplinary action involving possible suspension or revocation of certification or levying of fines:

a. Operating as a diagnostic radiographer, nuclear medicine technologist, or radiation therapist without meeting the requirements of this chapter.

b. Allowing any individual excluding a licensed physician to operate as a diagnostic radiographer, nuclear medicine technologist, or radiation therapist if that individual cannot provide proof of certification by the department.

c. Failing to report to the department any individual whom the certificate holder knows is in violation of this rule.

d. Submitting false information in order to obtain certification or renewal certification as a diagnostic radiographer, nuclear medicine technologist, or radiation therapist.

e. Any action that the department determines may jeopardize the public, other staff, or certificate holder's health and safety.

42.2(3) *Continuing education.*

a. Each individual, other than a licensed practitioner, who is certified under these rules shall, during a two-year period, obtain continuing education credit as follows:

(1) General diagnostic radiographer: 24 clock hours, 1.0 hour must be in radiation protection.

(2) Limited in-hospital diagnostic radiographer: 24 clock hours, 1.0 hour must be in radiation protection.

(3) Limited diagnostic radiographer: 12 clock hours, 1.0 hour must be in radiation protection.

(4) General nuclear medicine technologist: 24 hours total.

1. One clock hour in principles of radiation protection and exposure each year, a total of two hours each two-year period.

2. One clock hour in quality assurance each year, a total of two hours each two-year period.

3. The remaining 20 clock hours of continuing education in each two-year period may be in any other subjects directly related to nuclear medicine and approved by the department.

(5) Limited nuclear medicine technologists: 12 hours total, 1.0 hour must be radiation protection and 1.0 hour must be in quality assurance.

(6) Radiation therapist: proof of 24.0 clock hours of continuing education courses in subjects directly related to radiation therapy.

(7) Simulation therapist: proof of 24.0 clock hours of continuing education courses with at least 12.0 hours directly related to radiation therapy. 12.0 hours may be in specified diagnostic radiography courses.

b. Continuing education course approval.

(1) Thirty days prior to conducting a continuing education course, the sponsoring individual must submit the following:

1. The course objectives.

2. An outline of the course which sets forth the subject, the course content, and the length of the course in clock hours.

3. The instructor's name and short résumé detailing qualifications.

(2) Following its review, the department may, in consultation with or under predetermined guidance of the technical advisory committee, approve, disapprove, or request additional information on the proposed course.

(3) The department may, from time to time, audit the continuing education course to verify the adequacy of program content and delivery.

(4) Courses must be at least one clock hour in length and if lasting more than one hour, will be assigned credit in half-hour increments to the closest half-hour.

c. Continuing education credit will be awarded under provisions of 42.2(3) by the department to individuals:

(1) Who have successfully completed a continuing education course which has been approved by the department.

(2) Who present a department-approved continuing education course to individuals certified in the presenter's field. Credit granted shall be at a rate of two times the amount of time it takes to present the course up to a maximum of 50 percent of the total hours required.

(3) Only once during a two-year period for the same continuing education course.

d. Continuing education must be directly related to the area of practice of the operator attending the program. Twenty-five percent of the total hours required may be in "special category."

e. It is required that proof of receiving continuing education be retained at each individual's place of employment for review by representatives of the department. Proof of continuing education must be maintained for at least three years.

f. All continuing education requirements shall be completed during the two-year period prior to the certification continuing education due date.

g. Late submission of continuing education requirements.

(1) For any individual who completes the required continuing education before the continuing education due date but fails to submit the required proof within 30 days after the continuing education due date, the certification shall be terminated and the renewal fee will not be refunded.

(2) Any individual who fails to complete the required continuing education before the continuing education due date but submits a written plan of correction to obtain the required hours shall be allowed no more than 60 days after the original continuing education due date to complete the plan of correction and submit the documentation of completion of continuing education requirements. After 60 days, the certification shall be terminated and the individual shall not function as a diagnostic radiographer, radiation therapist, or nuclear medicine technologist in Iowa.

(3) Once certification has been terminated, any individual who requests permission to reestablish certification within six months of the initial continuing education due date must submit proof of continuing education hours and shall submit a late fee as set forth in 641—paragraph 38.8(6)*"c"* in addition to the annual fee set forth in 641—paragraph 38.8(6)*"a"* in order to obtain reinstatement of certification.

42.2(4) *Recertification.*

a. If an individual allows the certification to expire for any reason or if any individual voluntarily terminates certification, the following will apply:

(1) Any individual who wishes to regain certification and makes application within six months of the termination date will be allowed to do so with no additional training or testing required.

(2) Any individual who wishes to regain certification after the six-month period will need to meet the current educational and testing requirements for that particular certification. Proof of possession of a previous certification may satisfy the training portion of this requirement.

c. Any individual, other than a licensed physician, seeking certification as a limited nuclear medicine technologist shall, in addition to the requirements of 42.4(2)*"b,"* successfully complete a written examination approved by the department which includes the subject matter specified in 42.4(2)*"b."*

d. Any individual holding temporary certification must successfully complete an approved examination within one year of the issuance date of the certification.

42.4(4) *Exemptions.*

a. Students enrolled in and participating in an approved program or approved course of study for nuclear medicine technology or an approved school of medicine, osteopathy, podiatry, or chiropractic who, as a part of their course of study, administer radioactive material to a human being while under the supervision of a licensed physician who appears as an authorized user on an Iowa or NRC radioactive materials license. Clinical experience must be directly supervised by a certified nuclear medicine technologist or by a physician who appears as an authorized user on an Iowa or NRC radioactive materials license.

b. A licensed physician who appears as an authorized user on an Iowa or NRC radioactive materials license.

641—42.5(136C) Specific requirements for radiation therapists.

42.5(1) *Specific eligibility requirements.* Each individual shall meet one of the following:

a. Any individual who is registered in radiation therapy with the American Registry of Radiological Technologists in radiation therapy meets the education and testing requirements of this rule.

b. Any individual, other than a licensed physician, who has completed all educational requirements of this rule but has not successfully completed the required examination will be issued temporary certification valid for one year from the date of completion of a training program approved by the department.

42.5(2) *Training requirements.*

a. General radiation therapist. Successful completion of a Joint Committee on Education in Radiologic Technology approved course of study or equivalent designed to prepare the student to demonstrate didactic and clinical competency in radiation therapy including, but not limited to, anatomy, physiology, radiation physics, radiation protection and exposure, quality assurance, radiation oncology treatment techniques, dosimetry, radiation oncology and pathology, radiology, oncologic patient care and management.

b. Limited radiation therapist. Successful completion of a training program approved by the department to prepare the student to demonstrate competency in a specified area only. This includes the simulation therapist. Each program shall include the items in 42.5(2)*"a"* that are specific to the limited area.

c. Graduates of programs recognized by the department in consultation with the professional societies and others as being adequate and appropriate courses of study in radiation therapy technology may be considered to meet the requirements of this subrule.

42.5(3) *Examinations.*

a. Any individual, other than licensed physicians, seeking certification as a radiation therapist shall, in addition to the requirements of 42.5(2), satisfactorily complete a written examination in radiation therapy technology approved by the department. An approved examination is offered by the American Registry of Radiologic Technologists.

b. Any individual certified under these rules and exempted from examination is exempt from examination requirements as long as the initial certification remains in effect.

c. Any individual seeking to perform simulation radiography only must successfully complete an approved examination in either diagnostic radiography or radiation therapy.

d. Any individual holding a temporary certification must successfully complete an approved examination within one year of the date of completion of the training.

42.5(4) *Exemptions.*

a. Students enrolled in and participating in an approved program or approved course of study for radiation therapy technology or an approved school of medicine, osteopathy, podiatry, or chiropractic who, as a part of their course of study, administer radiation therapy to a human being while under the supervision of a licensed physician in the state of Iowa. Clinical experience must be directly supervised by a radiation therapist or radiation oncologist who physically observes and critiques the actual radiation therapy procedure.

b. A licensed physician in the state of Iowa.

These rules are intended to implement Iowa Code chapter 136C.

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Effective date of Ch 42 delayed by the Administrative Rules Review Committee forty-five days after convening of the next General Assembly pursuant to §17A.8(9). [IAB 9/29/82]
**Subrule 42.1(4)"*b*"(4) is rescinded two years subsequent to the effective date of rule 42.1(136C).
◊Two or more ARCs.

CHAPTER 45
RADIATION SAFETY REQUIREMENTS FOR INDUSTRIAL RADIOGRAPHIC OPERATIONS

[Prior to 8/5/92, see 641—41.4(136C)]

641—45.1(136C) General requirements for industrial radiography operations.

45.1(1) *Purpose and scope.* The rules in this chapter establish radiation safety requirements for using sources of radiation for industrial radiography. The requirements of this chapter are in addition to, and not in substitution for, other applicable requirements of 641—Chapters 38, 39, and 40. The rules in this chapter apply to all licensees or registrants who use sources of radiation for industrial radiography. All references to any Code of Federal Regulations (CFR) in this chapter are those in effect as of July 1, 1999.

The provisions of 641—Chapter 38 are in addition to, and not in substitution for, any other applicable portions of 641—Chapters 39 to 45.

45.1(2) *Definitions.* For the purpose of this chapter, the definitions of 641—Chapter 38 may also apply. As used in this chapter, the following definitions apply:

"Cabinet X-ray system" means an X-ray system with the X-ray tube installed in an enclosure independent of existing architectural structures except the floor on which it may be placed. The cabinet X-ray system is intended to:

1. Contain at least that portion of a material being irradiated;
2. Provide radiation attenuation; and
3. Exclude personnel from its interior during generation of radiation. Included are all X-ray systems designed primarily for the inspection of carry-on baggage at airline, railroad, and bus terminals, and in similar facilities. An X-ray tube used within a shielded part of a building, or X-ray equipment which may temporarily or occasionally incorporate portable shielding, is not considered a cabinet X-ray system.

"Certifiable cabinet X-ray system" means an existing uncertified X-ray system that has been modified to meet certification requirements specified in 21 CFR 1020.40.

"Certified cabinet X-ray system" means an X-ray system which has been certified in accordance with 21 CFR 1010.2 as being manufactured and assembled pursuant to the provisions of 21 CFR 1020.40.

"Collimator" means a small radiation shield of lead or other heavy metal that is placed on the end of a guide tube or directly onto a radiographic exposure device to restrict the size of the radiation beam when the sealed source is cranked into position to make a radiographic exposure.

"Crank-out device" means the cable, protective sheath, and handcrank used to move the sealed source from the shielded to the unshielded position to make an industrial radiographic exposure.

"Enclosed radiography" means industrial radiography conducted in an enclosed cabinet or room and includes cabinet radiography and shielded-room radiography.

"Fluoroscopic imaging assembly" means a subsystem in which X-ray photons produce a fluoroscopic image. It includes the image receptors such as the image intensifier and spot-film device, electrical interlocks, if any, and structural material providing linkage between the image receptor and source assembly.

"GED" means general educational development.

"I.D. card" means the document issued by the agency, another Agreement State, a licensing state, or third-party certification to industrial radiographers following completion of requirements stated in 45.1(10)*"b."*

"Lay-barge radiography" means industrial radiography performed on any water vessel used for laying pipe.

"Lixiscope" means a portable light-intensified imaging device using a sealed source.

"Lock-out survey" means a radiation survey performed to verify that a sealed source is in its shielded position. The lock-out survey is performed before moving the radiographic exposure device or source changer to a new location or when securing the radiographic exposure device or source changer.

"Minimal threat" means that during the operations of electronic devices capable of generating or emitting fields of radiation:

a. No deliberate exposure of an individual occurs;

b. The radiation is not emitted in an open beam configuration; and

c. No known physical injury to an individual has occurred.

"Offshore" means within the territorial waters of the United States.

"Permanent radiographic installation" means a shielded installation or structure designed or intended for performing enclosed radiography, not located at a temporary job site, and in which radiography is performed.

"Personal supervision" means guidance and instruction provided to a radiographer trainee by a radiographer instructor who is present at the site, in visual contact with the trainee while the trainee is using sources of radiation, and in such proximity that immediate assistance can be given if required.

"Platform radiography" means industrial radiography performed on an offshore platform or other structure.

"Radiation safety officer" means an individual named by the licensee or registrant who has a knowledge of, responsibility for, and authority to enforce appropriate radiation protection rules, standards, and practices on behalf of the licensee or registrant and who meets the requirements of 45.1(10)*"d."*

"Radiographer" means any individual who has successfully completed the training, testing, and documentation requirements of 45.1(10)*"b,"* who performs or personally supervises industrial radiographic operations, and is responsible to the licensee or registrant for ensuring compliance with the requirement of these rules and all license and certificate of registration conditions.

"Radiographer trainee" means any individual who has successfully completed the training, testing, and documentation requirements of 45.1(10)*"a"* and who uses sources of radiation and related handling tools or radiation survey instruments under the personal supervision of a radiographer trainer.

b. Utilization logs may be kept on IDPH Form 588-2693, Utilization Log, or on clear, legible records containing all the information required by 45.1(7)*"a."* Copies of utilization logs shall be maintained for agency inspection for two years from the date of the recorded event. The records shall be kept at the location specified by the license or certificate of registration.

45.1(8) *Inspection and maintenance.*

a. Each licensee or registrant shall ensure that visual and operability checks for obvious defects, proper working order, adequate shielding, and required labeling of radiation machines, radiographic exposure devices, storage containers, and source changers, and survey instruments are performed prior to each day or shift of use.

b. Each licensee or registrant shall conduct a program, at intervals not to exceed three months, or prior to the first use thereafter, of inspection and maintenance of radiation machines, radiographic exposure devices, storage containers, and source changers to ensure proper functioning of components important to safety. All appropriate parts shall be maintained in accordance with manufacturer's specifications. Records of inspection and maintenance shall be maintained for inspection by the agency for two years from the date of the recorded event. This program shall cover, as a minimum, the items in Appendix B.

c. If any inspection conducted pursuant to 45.1(8)*"a"* or *"b"* reveals damage to components critical to radiation safety, the device shall be removed from service and labeled as defective until repairs have been made.

45.1(9) *Permanent radiographic installations.* Permanent radiographic installations having high radiation area entrance controls of the type described in 641—paragraphs 40.42(1)*"b"* and *"c"* shall also meet the following requirements:

a. Each entrance that is used for personnel access to the high radiation area shall have both visible and audible warning signals to warn of the presence of radiation. The visible signal shall be activated by radiation. The audible signal shall be activated when an attempt is made to enter the installation while the source is exposed.

b. The control device or alarm system shall be tested for proper operation at the beginning of each day of equipment use. If a control device or alarm system is operating improperly, it shall be immediately labeled as defective and repaired before industrial radiographic operations are resumed. Records of these tests shall be maintained for inspection by the agency for two years from the date of the event.

45.1(10) *Training and testing for radiographic personnel.*

a. Radiographer trainee requirements. No licensee or registrant shall permit any individual to act as a radiographer trainee, as defined in this chapter, until:

(1) It has been documented on the appropriate agency form or equivalent that such individual has received copies of and has demonstrated an understanding of:

1. The subjects outlined in Appendix A, presented in a course approved by the agency, another agreement state, or the U.S. Nuclear Regulatory Commission;
2. The rules contained in this chapter and the applicable sections of 641—Chapters 38, 39, and 40;
3. The appropriate conditions of license(s) or certificate(s) of registration; and
4. The licensee's or registrant's operating and emergency procedures.

(2) The individual possesses a current agency-issued trainee status card issued after completion of 45.1(10)*"a"*(1). Trainee status will be granted only once for each individual and is valid for no longer than two years.

b. Radiographer requirements. No licensee or registrant shall permit any individual to act as a radiographer:

(1) Until it has been documented to the agency that such individual:

1. Has completed the requirements of 45.1(10)*"a"*(1);

2. Has completed at least two months of on-the-job training as a radiographer trainee supervised by one or more radiographic trainers authorized on a license or registration certificate. The on-the-job training shall be documented on the appropriate agency form or equivalent and shall include at least 200 hours of active participation in industrial radiographic operations and does not include safety meetings or classroom training (this requirement does not apply to individuals designated as radiographers prior to January 1, 1992);

3. Has demonstrated competence in the use of sources of radiation, radiographic exposure devices, related handling tools, and radiation survey instruments which may be employed in industrial radiographic assignments;

(2) Unless the individual has successfully completed within the last five years the appropriate agency-administered examination prescribed in 45.1(10)*"f"*(2) or equivalent examination; and

(3) Unless the individual possesses a current I.D. card.

c. Radiographer trainer. No individual shall act as a radiographer trainer unless such individual:

(1) Has met the requirements of 45.1(10)*"a"*(1) and *"b"*;

(2) Has one year of documented experience as an industrial radiographer; and

(3) Is named on the specific license or certificate of registration issued by the agency and under which an individual is acting as a radiographer trainer, or

(4) Possesses a valid radiographer trainer card issued by the agency.

d. Radiation safety officer.

(1) A radiation safety officer (RSO) shall be designated for every industrial radiography license and certificate of registration issued by the agency.

(2) The RSO's qualifications shall include:

1. Possession of a high school diploma or a certificate of high school equivalency based on the GED test;

2. Completion of the training and testing requirements of 45.1(10)*"a"*(1) and 45.1(10)*"b"*(1)"3," (2), and (3); and

3. Two years of documented radiation protection experience, including knowledge of industrial radiographic operations with at least 40 hours of active participation in industrial radiographic operations.

(3) The specific duties of the RSO include, but are not limited to, the following:

1. To establish and oversee operating, emergency, and ALARA procedures and to review them regularly to ensure that the procedures are current and conform with these rules;

2. To oversee and approve all phases of the training program for radiographic personnel so that appropriate and effective radiation protection practices are taught;

3. To ensure that required radiation surveys and leak tests are performed and documented in accordance with these rules, including any corrective measures when levels of radiation exceed established limits;

CHAPTER 45—APPENDIX E

SUBJECTS TO BE INCLUDED IN TRAINING COURSES FOR LOGGING SUPERVISORS

I. Fundamentals of radiation safety.
   A. Characteristics of radiation.
   B. Units of radiation dose and quantity of radioactivity.
   C. Significance of radiation dose.
      1. Radiation protection standards.
      2. Biological effects of radiation dose.
   D. Levels of radiation from sources of radiation.
   E. Methods of minimizing radiation dose.
      1. Working time.
      2. Working distances.
      3. Shielding.
   F. Radiation safety practices including prevention of contamination and methods of decontamination.

II. Radiation detection instrumentation to be used.
   A. Use of radiation survey instruments.
      1. Operation.
      2. Calibration.
      3. Limitations.
   B. Survey techniques.
   C. Use of personnel monitoring equipment.

III. Equipment to be used.
   A. Handling equipment.
   B. Sources of radiation.
   C. Storage and control of equipment.
   D. Operation and control of equipment.

IV. The requirements of pertinent federal and state regulations.

V. The licensee's or registrant's written operating and emergency procedures.

VI. The licensee's or registrant's record-keeping procedures.

CHAPTER 45—APPENDIX F
EXAMPLE OF PLAQUE FOR IDENTIFYING WELLS CONTAINING SEALED SOURCES CONTAINING RADIOACTIVE MATERIAL ABANDONED DOWNHOLE

The size of the plaque should be convenient for use on active or inactive wells, e.g., a 7-inch square. Letter size of the word "CAUTION" should be approximately twice the letter size of the rest of the information, e.g., ½-inch and ¼-inch letter size, respectively.

These rules are intended to implement Iowa Code chapters 136B and 136C.

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CHAPTER 46
MINIMUM REQUIREMENTS FOR TANNING FACILITIES

641—46.1(136D) Purpose and scope. This chapter provides for the permitting and regulation of tanning facilities and devices used for the purpose of tanning human skin through the application of ultraviolet radiation. This includes, but is not limited to, public and private businesses, hotels, motels, apartments, condominiums, and health and country clubs.

All references to Code of Federal Regulations (CFR) in this chapter are those in effect as of July 1, 1999.

These rules stipulate minimum safety requirements relating to the operation of tanning devices; procedures for obtaining a permit; qualifications for tanning facility operators; and procedures for health departments to provide for the inspection of tanning facilities and enforcement of these rules. Tanning facilities which are in compliance with these rules are not relieved from the requirements of any other federal and state regulations or local ordinances.

641—46.2(136D) Definitions.

"Board of health" means a county, city, or district board of health that has a 28E agreement with the Iowa department of public health to perform inspections under this chapter.

"Cleansing" means to remove soil, dirt, oils or other residues from the surface of the tanning unit which may come into contact with the skin.

"Cleansing agent" means a substance capable of producing the effect of "cleansing." These agents shall not adversely affect the equipment or the health of the consumer and shall be acceptable to the department or board of health.

"Consumer" means any member of the public who is provided access to a tanning facility in exchange for a fee or other compensation, or any individual who, in exchange for a fee or other compensation, is afforded use of a tanning facility as a condition or benefit of membership or access.

"Department" means the Iowa department of public health.

"Director" means the director of public health or the director's designee.

"Exposure position" means any position, distance, orientation, or location relative to the radiation surfaces of a tanning device at which the user is intended to be exposed to ultraviolet radiation from the product, as recommended by the manufacturer.

"Formal training" means a course of instruction approved by the department for operators of tanning facilities.

"Health care professional" means an individual, licensed by the state of Iowa, who has received formal medical training in the use of phototherapy.

"Inspection" means an official examination or observation including but not limited to tests, surveys, and monitoring to determine compliance with rules, orders, requirements, and conditions of these rules.

"Manufacturer's recommendations" means written guidelines established by a manufacturer and approved by the U.S. Food and Drug Administration for the installation and operation of the manufacturer's equipment.

"Operator" means an individual designated to control operation of the tanning facility and to instruct and assist the consumer in the proper operation of the tanning devices.

"Permit" or *"permit to operate"* means a document issued by the department which authorizes a person to operate a tanning facility in Iowa.

"Person" means any individual, corporation, partnership, firm, association, trust, estate, public or private institution, group, agency, political subdivision of this state, any other state or political subdivision or agency thereof, and any legal successor, representative, agent, or agency of the foregoing, but shall not include federal government agencies.

"Phototherapy device" means a piece of equipment that emits ultraviolet radiation and is used by a health care professional in the treatment of disease.

"Tanning device" means any equipment that emits electromagnetic radiation with wavelengths in air between 200 and 400 nanometers and that is used for tanning of human skin, such as sunlamps, tanning booths, or tanning beds. The terms also include any accompanying equipment such as protective eyewear, timers, and handrails.

"Tanning facility" means a place that provides access to tanning devices for compensation.

"Ultraviolet radiation" means electromagnetic radiation with wavelengths in air between 200 and 400 nanometers.

641—46.3(136D) Exemptions. The department may, upon application or upon its own initiative, grant exemptions from the requirements of these rules as long as it will not result in undue hazard to public health and safety. The following categories of devices are exempt from the provisions of this chapter:

46.3(1) *Other purposes.* Devices intended for purposes other than the deliberate exposure of human skin to ultraviolet radiation which produce or emit ultraviolet radiation incidental to their proper operation.

46.3(2) *Personal use.* Tanning devices which are limited exclusively to personal use by an individual and this individual's immediate family. Multiple ownership of the device by persons for personal use only does not qualify it for the "personal use only" exemption.

46.3(3) *Phototherapy devices.* Phototherapy devices used by a properly trained health care professional in the treatment of disease.

641—46.4(136D) Permits and fees.

46.4(1) *Permit to operate.* No tanning facility shall be operated in the state without having a permit to operate issued by the department.

46.4(2) *Application requirements for permit.* Each person acquiring or establishing a tanning facility shall:

a. Apply for a permit prior to beginning operation. The application shall be completed on forms provided by the department or board of health and shall contain all information required by the form and accompanying instructions. A nonrefundable application fee of $5 shall be remitted with the application.

b. A $15 returned check fee will be charged for each check returned for insufficient funds.

c. The permit holder shall notify the department in writing within 30 days of any changes, additions, or deletions to the initial or renewal application as appropriate. This request does not apply to changes involving replacement of components in tanning equipment.

46.4(3) *Expiration of permit.* Except as provided in 46.4(4)*"b,"* each permit shall expire at the end of the specified day in the month and year stated therein.

CHAPTER 46
MINIMUM REQUIREMENTS FOR TANNING FACILITIES

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All references to Code of Federal Regulations (CFR) in this chapter are those in effect as of July 1, 1999.

These rules stipulate minimum safety requirements relating to the operation of tanning devices; procedures for obtaining a permit; qualifications for tanning facility operators; and procedures for health departments to provide for the inspection of tanning facilities and enforcement of these rules. Tanning facilities which are in compliance with these rules are not relieved from the requirements of any other federal and state regulations or local ordinances.

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"Consumer" means any member of the public who is provided access to a tanning facility in exchange for a fee or other compensation, or any individual who, in exchange for a fee or other compensation, is afforded use of a tanning facility as a condition or benefit of membership or access.

"Department" means the Iowa department of public health.

"Director" means the director of public health or the director's designee.

"Exposure position" means any position, distance, orientation, or location relative to the radiation surfaces of a tanning device at which the user is intended to be exposed to ultraviolet radiation from the product, as recommended by the manufacturer.

"Formal training" means a course of instruction approved by the department for operators of tanning facilities.

"Health care professional" means an individual, licensed by the state of Iowa, who has received formal medical training in the use of phototherapy.

"Inspection" means an official examination or observation including but not limited to tests, surveys, and monitoring to determine compliance with rules, orders, requirements, and conditions of these rules.

"Manufacturer's recommendations" means written guidelines established by a manufacturer and approved by the U.S. Food and Drug Administration for the installation and operation of the manufacturer's equipment.

"Operator" means an individual designated to control operation of the tanning facility and to instruct and assist the consumer in the proper operation of the tanning devices.

"Permit" or *"permit to operate"* means a document issued by the department which authorizes a person to operate a tanning facility in Iowa.

"Person" means any individual, corporation, partnership, firm, association, trust, estate, public or private institution, group, agency, political subdivision of this state, any other state or political subdivision or agency thereof, and any legal successor, representative, agent, or agency of the foregoing, but shall not include federal government agencies.

"Phototherapy device" means a piece of equipment that emits ultraviolet radiation and is used by a health care professional in the treatment of disease.

"Tanning device" means any equipment that emits electromagnetic radiation with wavelengths in air between 200 and 400 nanometers and that is used for tanning of human skin, such as sunlamps, tanning booths, or tanning beds. The terms also include any accompanying equipment such as protective eyewear, timers, and handrails.

"Tanning facility" means a place that provides access to tanning devices for compensation.

"Ultraviolet radiation" means electromagnetic radiation with wavelengths in air between 200 and 400 nanometers.

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b. A $15 returned check fee will be charged for each check returned for insufficient funds.

c. The permit holder shall notify the department in writing within 30 days of any changes, additions, or deletions to the initial or renewal application as appropriate. This request does not apply to changes involving replacement of components in tanning equipment.

46.4(3) *Expiration of permit.* Except as provided in 46.4(4)*"b,"* each permit shall expire at the end of the specified day in the month and year stated therein.

(3) Basic information on how different skin types respond to tanning (see Appendix 2).

(4) An explanation of the need to use eyewear.

(5) The operator shall then request that the consumer sign a statement that the information has been read and understood.

46.5(2) Federal certification.

a. Only tanning devices manufactured and certified under the provisions of 21 CFR Part 1040.20, "Sunlamp products and ultraviolet lamps intended for use in sunlamp products," shall be used in tanning facilities. Compliance shall be based on the standard in effect at the time of manufacture as shown on the device identification label required by 21 CFR Parts 1010.2 and 1010.3.

b. Labeling shall meet the following requirements, be visible on each unit and be permanently affixed. Labeling shall include:

(1) A warning statement with the words "DANGER-Ultraviolet radiation. Follow instructions. Avoid overexposure. As with natural sunlight, overexposure can cause eye and skin injury and allergic reactions. Repeated exposure may cause premature aging of the skin and skin cancer. WEAR PROTECTIVE EYEWEAR; FAILURE TO MAY RESULT IN SEVERE BURNS OR LONG-TERM INJURY TO THE EYES. Medications or cosmetics may increase your sensitivity to the ultraviolet radiation. Consult a physician before using a sunlamp if you are using medications or have a history of skin problems or believe yourself especially sensitive to sunlight. If you do not tan in the sun, you are unlikely to tan from the use of this product."

(2) Recommended exposure position(s). Any exposure position may be expressed either in terms of a distance specified both in meters and in feet (or in inches) or through the use of markings or other means to indicate clearly the recommended exposure position.

(3) Directions for achieving the recommended exposure position(s) and a warning that the use of other positions may result in overexposure.

(4) A recommended exposure schedule including duration and spacing of sequential exposures and maximum exposure time(s) in minutes.

(5) A statement of the time it may take before the expected results appear.

(6) Designation of the ultraviolet lamp type to be used in the product.

46.5(3) Tanning device timers.

a. Each tanning device shall have a timer which complies with the requirements of 21 CFR Part 1040.20. The maximum timer interval shall not exceed the manufacturer's maximum recommended exposure time by a factor greater than ± 10 percent of the indicated setting.

b. Each tanning device must have a method of remote timing located so that consumers may not control their own exposure time.

c. Tokens for token timers shall not be issued to any consumer in quantities greater than the device manufacturer's maximum recommended exposure time for the consumer.

46.5(4) Each tanning device shall incorporate a control on the product to enable the consumer to manually terminate the radiation emission from the product at any time without disconnecting the electrical source or removing the ultraviolet lamp.

46.5(5) The operator shall ensure that the facility's interior temperature does not exceed 100 degrees F or 38 degrees C.

46.5(6) Condition of tanning devices.

a. There shall be physical barriers to protect consumers from injury induced by falling against or breaking the lamps.

b. The tanning devices shall be maintained in good repair and comply with all state and local electrical code requirements.

46.5(7) Additional requirements for stand-up booths.

a. There shall be physical barriers (e.g., handrails) or other means (floor markings) to indicate the proper exposure distance between ultraviolet lamps and the consumer's skin.

b. The construction of the booth shall be such that it will withstand the stress of use and the impact of a falling person.

c. Access to the booth shall be of rigid construction; doors shall open outwardly. Handrails and nonslip floors shall be provided.

46.5(8) Protective eyewear.

a. Eyewear shall not be reused by another consumer.

b. Protective eyewear shall meet the requirements of 21 CFR Part 1040.20(c)(4).

c. Protective eyewear shall not be altered in any manner that would change its use as intended by the manufacturer (e.g., removal of straps).

d. A tanning facility operator shall not allow a consumer to use a tanning device if that consumer does not use the protective eyewear required by this subrule.

46.5(9) Operation.

a. A trained operator must be present when a tanning device is operated. The operator must be within hearing distance to allow the consumer to easily summon help if necessary. If the operator is not in the immediate vicinity during use, the following conditions must be met:

(1) The consumer can summon help through use of an audible device such as an intercom or buzzer; and

(2) The operator can reach the consumer within 30 seconds after being summoned.

b. The facility permit to operate shall be displayed in an open public area of the tanning facility.

c. A record shall be kept by the facility operator of each consumer's total number of tanning visits and tanning times, exposure lengths in minutes, times and dates of the exposure, and any injuries or illness resulting from the use of a tanning device.

d. A written report of any tanning injury shall be forwarded by the permit holder to the department within five working days of its occurrence or knowledge thereof. The report shall include:

(1) The name of the affected individual;

(2) The name and location of the tanning facility involved;

(3) The nature of the injury;

(4) The name and address of the health care provider treating the affected individual, if any; and

(5) Any other information considered relevant to the situation.

e. Defective or burned-out lamps or filters shall be replaced with a type intended for use in that device as specified on the product label on the tanning device or with lamps or filters that are "equivalent" under 21 CFR Part 1040, Section 1040.20, and policies applicable at the time of lamp manufacture.

f. The permit holder shall replace ultraviolet lamps and bulbs, which are not otherwise defective or damaged, at such frequency or after such duration of use as may be recommended by the manufacturer of such lamps or bulbs.

g. Contact surfaces of tanning devices shall be cleansed by the operator with a cleansing agent between each use or the contact surfaces may be covered by a nonreusable protective material during each use.

h. Any records or documentation required by this chapter must be maintained in the tanning facility for a minimum of two years. Records maintained on computer systems shall be regularly copied, at least monthly, and updated on storage media other than the hard drive of the computer. An electronic record must be retrievable as a printed copy.

Appendix 2

SUN-REACTIVE SKIN TYPES USED IN CLINICAL PRACTICE

SKIN TYPE	SKIN REACTIONS TO SOLAR RADIATION [a]	EXAMPLES
I	Always burns easily and severely (painful burn). Tans little or none and peels.	[b] People most often with fair skin, blue eyes, freckles. Unexposed skin is white.
II	Usually burns easily and severely (painful burn). Tans minimally or lightly, also peels.	[b] People most often with fair skin; red or blonde hair; blue, hazel or even brown eyes. Unexposed skin is white.
III	Burns moderately and tans about average.	Normal average Caucasoid. Unexposed skin is white.
IV	Burns minimally, tans easily, and above average with each exposure. Exhibits IPD (immediate pigment darkening) reaction.	People with white or light brown skin, dark skin, dark brown hair, dark eyes (e.g., Mediterraneans, Orientals, Hispanics, etc.). Unexposed skin is white or light brown.
V	Rarely burns, tans easily and substantially. Always exhibits IPD reaction.	Brown-skinned persons (e.g., Amerindians, East Indians, Hispanics, etc.). Unexposed skin is brown.
VI	Never burns and tans profusely; exhibits IPD reaction.	Blacks (e.g., African and American Blacks, Australian and South Indian Aborigines); unexposed skin is black.

(a) Based in the first 45-60 minutes (=2-3 minimum erythema dose) exposure of the summer sun (early June) at sea level

(b) They may be of Celtic background (Irish or Scottish); others may even have dark hair or brown eyes

These rules are intended to implement Iowa Code chapters 136B, 136C, and 136D.

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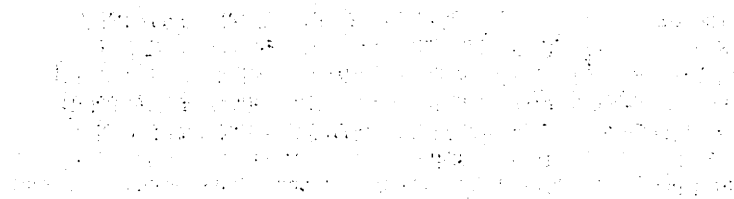

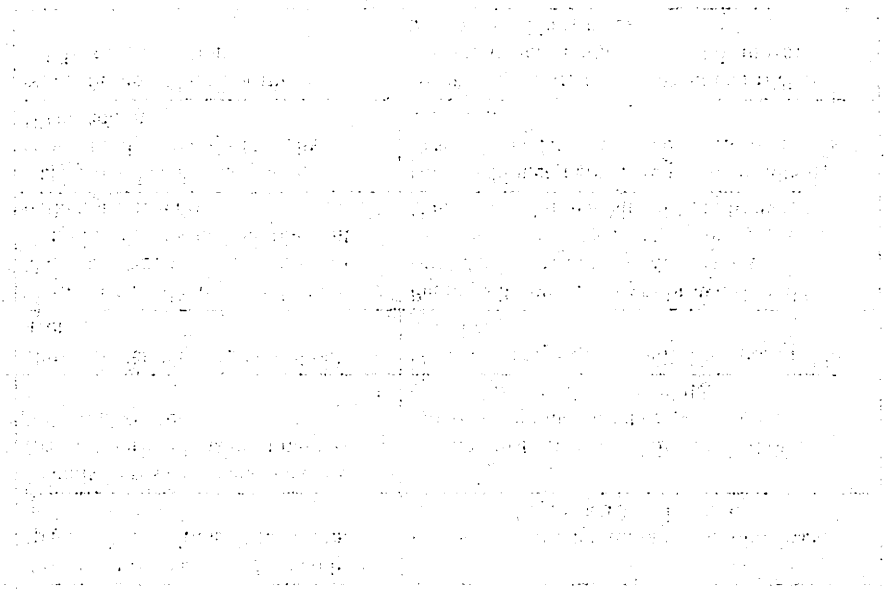

BEHAVIORAL SCIENCE EXAMINERS

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BEHAVIORAL SCIENCE EXAMINERS

CHAPTER 30
LICENSURE OF MARITAL AND FAMILY THERAPISTS AND MENTAL HEALTH COUNSELORS

645—30.1(147,154D) Definitions.

"Board" means the board of behavioral science examiners.

"Course" means three graduate semester credit hours.

"Department" means the Iowa department of public health.

"Hour of continuing education" means 50 minutes of attendance per clock hour.

"Licensee" means a person licensed as a marital and family therapist or a mental health counselor.

"Licensure by interstate endorsement" means the issuance of an Iowa license to practice mental health counseling or marital and family therapy to an applicant who is currently licensed in another state. Application will be considered on an individual basis for licensure in Iowa, if the applicant meets the qualifications required in Iowa.

645—30.2(147,154D) Examination and licensure procedures.

30.2(1) All applications must be made on the official forms supplied by the Board of Behavioral Science Examiners, Professional Licensure Division, Iowa Department of Public Health, Lucas State Office Building, Des Moines, Iowa 50319-0075.

30.2(2) The completed application form shall be filed with the board of behavioral science examiners with all required supporting documents and fees at least 90 days before the date of the examination. An applicant for a license to practice marital and family therapy or mental health counseling applying prior to July 1, 2000, shall not be required respectively to meet the examination requirement contained in Iowa Code section 154D.2, subsection 1, paragraph *"c,"* or subsection 2, paragraph *"c,"* if one of the following is met:

a. The applicant meets the requirements contained in Iowa Code section 154D.2, subsection 1, paragraphs *"a"* and *"b,"* or subsection 2, paragraphs *"a"* and *"b,"* respectively.

b. The applicant meets the requirements contained in Iowa Code section 154D.2, subsection 1, paragraph *"a,"* or subsection 2, paragraph *"a,"* and has 4,000 hours of employment experience in the practice of marital and family therapy or mental health counseling, respectively.

30.2(3) The board may consider applications which do not appear on their face to meet statutory or rule requirements on a case-by-case basis if the requirement may be alternatively satisfied by demonstrated equivalency. The burden shall be on the applicant to document that the applicant's education and experience are substantially equivalent to the requirements which may be alternatively satisfied.

30.2(4) An individual licensed in another state seeking a license to practice marital and family therapy or mental health counseling in Iowa will be considered on an individual basis under the principle of interstate endorsement.

30.2(5) Applicants who file incomplete applications will not be allowed to take the examination. Incomplete applications that have been on file in the board office for two years shall be considered invalid and shall be destroyed. The application fee is nonrefundable.

30.2(6) The passing score on the written examination shall be the passing point criterion established by the appropriate national testing authority at the time the test was administered.

30.2(7) An oral examination may be administered to an applicant at the board's discretion.

30.2(8) Transition provisions.

a. An applicant for a license to practice marital and family therapy or mental health counseling, applying prior to July 1, 2000, shall not be required respectively to meet the examination requirement contained in Iowa Code section 154D.2, subsection 1, paragraph *"c,"* or subsection 2, paragraph *"c,"* if one of the following is met:

(1) The applicant meets the requirements contained in Iowa Code section 154D.2, subsection 1, paragraphs *"a"* and *"b,"* or subsection 2, paragraphs *"a"* and *"b,"* respectively.

(2) The applicant meets the requirements contained in Iowa Code section 154D.2, subsection 1, paragraph *"a,"* or subsection 2, paragraph *"a,"* and has 4,000 hours of employment experience in the practice of marital and family therapy or mental health counseling, respectively.

b. Penalty fees otherwise incurred pursuant to Iowa Code section 147.10, and continuing education requirements applicable to the period prior to license reinstatement, shall be waived by the board for any previously licensed marital and family therapist or mental health counselor whose license has lapsed prior to July 1, 1998. Applicants with a lapsed license applying for reinstatement shall be required to complete a reinstatement application and pay a renewal fee and reinstatement fee pursuant to Iowa Code section 147.11 and section 147.80, subsections 21 and 22.

30.2(9) All material sent to the board for review must be submitted at least one week before a regularly scheduled meeting. Materials received after this deadline will be reviewed at the next regularly scheduled meeting of the board.

645—30.3(147,154D) Examination and licensure requirements—marital and family therapists. The applicant must present proof of meeting the following requirements:

30.3(1) Academic requirements.

a. Applicants must present with the application an official transcript proving completion of a 45 semester hour (or 60 quarter hour) master's degree or a doctoral degree in marital and family therapy from a program accredited by the American Association for Marriage and Family Therapy's Commission on Accreditation from a college or university accredited by an agency recognized by the United States Department of Education or the Council on Postsecondary Accreditation; or

b. Applicants must present with the application an official transcript proving completion of a 45 semester hour (or 60 quarter hour) master's degree or a doctoral degree in a mental health, behavioral science, or a counseling-related field from a college or university accredited by an agency recognized by the United States Department of Education or the Council on Postsecondary Accreditation, which is content-equivalent to a graduate degree in marital and family therapy. In order to qualify as a "content-equivalent" degree, a graduate transcript must document:

(1) At least three courses in each of the areas listed below:

1. Theoretical foundations of marital and family therapy systems. Any course which deals primarily in areas such as family life cycle; theories of family development; marriage or the family; sociology of the family; families under stress; the contemporary family; family in a social context; the cross-cultural family; youth/adult/aging and the family; family subsystems; individual, interpersonal relationships (marital, parental, sibling).

2. Assessment and treatment in family and marital therapy. Any course which deals primarily in areas such as family therapy methodology; family assessment; treatment and intervention methods; overview of major clinical theories of marital and family therapy, such as communications, contextual, experiential, object relations, strategic, structural, systemic, transgenerational.

3. Human development. Any course which deals primarily in areas such as human development; personality theory; human sexuality. One course muse be psychopathology.

If the applicant has taught a graduate-level course as outlined above at a college or university accredited by an agency recognized by the United States Department of Education or the Council on Professional Accreditation, that course will be credited toward the course requirements.

(2) At least one course in each of these two areas:

1. Ethics and professional studies. Any course which deals primarily in areas such as professional socialization and the role of the professional organization; legal responsibilities and liabilities; independent practice and interprofessional cooperation; ethics; family law.

2. Research. Any course which deals primarily in areas such as research design, methods, statistics; research in marital and family studies and therapy.

If the applicant has taught a graduate-level course as outlined above at a college or university accredited by an agency recognized by the United States Department of Education or the Council on Professional Accreditation, that course will be credited toward the course requirements.

(3) Practicum/internship (at least 300 clock hours) is required for all applicants.

c. An oral examination may be administered to an applicant at the board's discretion.

30.3(2) Clinical experience requirements. The applicant must document a minimum of two years or its equivalent of full-time supervised professional work experience in marital and family therapy following completion of the practicum and all graduate coursework, with exception of the thesis. This experience must include successful completion of at least 200 hours of supervision concurrent with 1,000 hours of marital and family therapy conducted in face-to-face contact with couples and families. Only supervised clinical contact may be credited for this requirement. At least 100 of the 200 hours of supervision must be individual supervision.

a. Supervision of marital and family therapy is expected to have the following characteristics:

(1) It is face-to-face conversation with the supervisor, usually in periods of approximately one hour each.

(2) The learning process is sustained and intense. Appointments are customarily scheduled once a week; three times weekly is ordinarily the maximum and once every other week the minimum. Marital and family therapy supervision is normally completed over a period of two to three years in blocks of at least 20 hours.

(3) It is recommended that the supervision experience include more than one supervisor with diverse family therapy theoretical orientations.

(4) Supervision focuses on the raw data from a supervisee's continuing clinical practice, which is available to the supervisor through a combination of direct observation, cotherapy, written clinical notes, and audio and video recordings.

(5) Supervision is a process clearly distinguishable from personal psychotherapy and is contracted in order to serve professional/vocational goals.

(6) Individual supervision shall be face-to-face with no more than one supervisor to two supervisees.

(7) Group supervision may be done with up to six supervisees and a supervisor.

b. The following activities are not acceptable clinical supervision:

(1) Peer supervision, i.e., supervision by a person of equivalent, but not superior, qualifications, status, and experience.

(2) Supervision by current or former family members, or any other person where the nature of the personal relationship prevents, or makes difficult, the establishment of a professional relationship.

(3) Administrative supervision. For example, clinical practice performed under administrative rather than clinical supervision of an institutional director or executive.

(4) A primarily didactic process wherein techniques or procedures are taught in a group setting, classroom, workshop, or seminar.

(5) Consultation, staff development, or orientation to a field or program, or role-playing of family interrelationships as a substitute for current clinical practice in an appropriate clinical situation.

c. Supervision may be provided by supervisors or supervisors-in-training approved by the American Association for Marriage and Family Therapy Commission on Supervision. Alternate supervisors will be considered by the board. Proposed alternate supervisors must submit an alternate supervision request form and meet standards of supervisory training set by the board. They are evaluated on a case-by-case basis.

d. All supervision beginning on or after January 1, 2001, shall be provided by a person licensed as a marital and family therapist.

30.3(3) An applicant who has obtained American Association for Marriage and Family Therapy clinical membership is considered to have met the education and clinical experience requirements of subrules 30.3(1) and 30.3(2).

30.3(4) Examination requirement.

a. In order to qualify for licensing, the applicant will be required to take the Examination in Marital and Family Therapy. The board will set the passing score.

b. Examination dates will be announced by the board. The schedule for the written examination will establish the time, place, and other pertinent information or instructions. The examination fee is to be paid by check or money order to the Iowa Board of Behavioral Science Examiners.

c. An applicant who fails to appear for the scheduled examination will forfeit the examination fee. The examination fee will not be refunded.

d. Application for any required examination will be denied or deferred if the applicant lacks the required education or practice experience.

e. The board will notify the applicant in writing of examination results.

f. Persons determined by the board not to have performed satisfactorily may apply for reexamination. A separate examination fee shall be paid for each examination.

g. Persons having previously completed the required examination must either:

(1) Request the testing service to submit the official score report directly to the board; or

(2) Retake the examination.

Scores meeting or exceeding the board-determined passing score will be accepted as fulfilling the examination requirement.

645—30.4(147,154D) Examination and licensure requirements—mental health counselors. The applicant must present proof of meeting the following requirements:

30.4(1) Academic requirements.

a. Applicants must present with the application an official transcript proving completion of a 45 semester hour (or 60 quarter hour) master's degree or a doctoral degree in counseling with emphasis in mental health counseling from a program accredited by the Council on Accreditation of Counseling and Related Educational Programs from a college or university accredited by an agency recognized by the United States Department of Education or the Council on Postsecondary Accreditation; or

b. Applicants must present with the application an official transcript proving completion of a master's degree or a doctoral degree from a college or university accredited by an agency recognized by the United States Department of Education or the Council on Postsecondary Accreditation which is content-equivalent to a master's degree in counseling with emphasis in mental health counseling. The degree will be considered as "content-equivalent" if it includes 45 semester hours (or 60 quarter hours) and successful completion of graduate-level coursework in each of the following areas:

(1) Counseling theories;
(2) Supervised counseling practicum;
(3) Human growth and development, addressing both normal and abnormal development;
(4) Social and cultural foundations;
(5) Prepracticum helping skills;
(6) Group dynamics, processing and counseling;
(7) Lifestyle and career development;
(8) Diagnosis, assessment and treatment procedures;
(9) Research and evaluation;
(10) Ethics and professional orientation;
(11) Supervised counseling internship;
(12) Psychopathology.

If the applicant has taught a graduate-level course as outlined above at a college or university accredited by an agency recognized by the United States Department of Education or the Council on Professional Accreditation, that course will be credited toward the course requirement.

c. An oral examination may be administered to an applicant at the board's discretion.

30.4(2) Clinical experience requirements. The applicant must document a minimum of two years or its equivalent of full-time supervised professional work experience in mental health counseling following completion of the practicum and all graduate coursework, with exception of the thesis.

a. Supervision of mental health counseling is expected to have the following characteristics:

(1) It is face-to-face conversation with the supervisor usually in periods of approximately one hour each.

(2) The learning process is sustained and intense. Appointments are customarily scheduled once a week; three times weekly is ordinarily the maximum and once every other week the minimum. Mental health counseling supervision is normally completed over a period of two to three years in blocks of at least 20 hours.

(3) It is recommended that the supervision experience include more than one supervisor with diverse mental health counseling orientations.

(4) Supervision focuses on the raw data from a supervisee's continuing clinical practice, which is available to the supervisor through a combination of direct observation, cocounseling, written clinical notes, and audio and video records.

(5) Supervision is a process clearly distinguishable from personal counseling and is contracted in order to serve professional/vocational goals.

(6) Individual supervision shall be face-to-face with no more than one supervisor to two supervisees.

(7) Group supervision may be done with up to six supervisees and a supervisor.

b. The following activities are not acceptable clinical supervision:

(1) Peer supervision, i.e., supervision by a person of equivalent, but not superior, qualifications, status, and experience.

(2) Supervision by current or former family members, or any other person where the nature of the personal relationship prevents, or makes difficult, the establishment of a professional relationship.

(3) Administration supervision. For example, clinical practice performed under administrative rather than clinical supervision of an institutional director or executive.

(4) A primarily didactic process wherein techniques or procedures are taught in a group setting, classroom, workshop, or seminar.

(5) Consultation, staff development, or orientation to a field or program, or role-playing of family interrelationships as a substitute for current clinical practice in an appropriate clinical situation.

c. The applicant must document a minimum of two years or its equivalent of full-time supervised professional work experience in mental health counseling following completion of the practicum and all graduate coursework, with exception of the thesis. This experience must include successful completion of at least 200 hours of supervision concurrent with 1,000 hours of mental health counseling conducted in face-to-face contact with individuals or groups. Only supervised clinical contact may be credited for this requirement. At least 100 of the 200 hours of supervision must be individual supervision.

d. Supervision may be provided by:

(1) A supervisor approved by the National Academy of Certified Clinical Mental Health Counselors.

(2) A person who presents proof satisfactory to the board that, at the time of supervision, the person possessed essentially the same education, experience and training as that necessary to qualify for licensure as a mental health counselor. Those applying for approved supervisory status under this paragraph will be evaluated by the board on a case-by-case basis.

(3) An alternate supervisor to be approved by the board, including mental health professionals licensed pursuant to Iowa Code chapter 147. Proposed alternate supervisors must submit an alternate supervision request form and meet standards of supervisory training set by the board. They are evaluated on a case-by-case basis.

e. All supervision beginning on or after January 1, 2001, must be provided by a person licensed as a mental health counselor.

30.4(3) An applicant who has achieved Certified Clinical Mental Health Counselor status with the National Academy of Certified Clinical Mental Health Counselors is considered to have met the education and clinical experience requirements of subrules 30.4(1) and 30.4(2).

30.4(4) Examination requirement.

a. In order to qualify for licensing, the applicant will be required to take the National Counselor Examination of the National Board for Certified Counselors, or the Clinical Counselor Examination of the National Academy of Certified Clinical Mental Health Counselors. The board will set the passing score.

b. Examination dates will be announced by the board. The schedule for the written examination will establish the time, place and other pertinent information or instructions. The examination fee is to be paid by check or money order to the Iowa Board of Behavioral Science Examiners.

c. An applicant who fails to appear for the scheduled examination will forfeit the examination fee. The examination fee will not be refunded.

d. Application for any required examination will be denied or deferred if the applicant lacks the required education or practice experience.

e. The board will notify the applicant in writing of examination results.

f. Persons determined by the board not to have performed satisfactorily may apply for reexamination. A separate examination fee shall be paid for each examination.

g. Persons having previously completed the required examination must either:

(1) Request the testing service to submit the official score report directly to the board; or

(2) Retake the examination.

Scores meeting or exceeding the board-determined passing score will be accepted as fulfilling the examination requirement.

645—30.5(147,154D) Licensure by interstate endorsement.

30.5(1) An individual licensed to practice marital and family therapy or mental health counseling in another state and who is seeking a license to practice marital and family therapy or mental health counseling in Iowa will be considered on an individual basis under the principle of interstate endorsement. All applicants for marital and family therapy licensure shall meet requirements specified in rule 30.3(147,154D). All applicants for mental health counseling licensure shall meet requirements specified in rule 30.4(147,154D).

30.5(2) Applications for licensure to practice marital and family therapy or mental health counseling in Iowa shall be made to the Board of Behavioral Science Examiners, Professional Licensure Division, Iowa Department of Public Health, Lucas State Office Building, Des Moines, Iowa 50319-0075.

30.5(3) Applicants shall arrange to provide:

a. An official statement from each state board of examiners regarding the status of the applicant's license, including issue date, expiration date and information regarding any pending or prior investigations or disciplinary action. The applicant shall request such statements from all states in which the applicant is currently or formerly licensed.

b. A certified copy of the scores from the appropriate professional examination to be sent to the board. An applicant for a license to practice marital and family therapy or mental health counseling, applying prior to July 1, 2000, shall not be required respectively to meet the examination requirement contained in Iowa Code section 154D.2, subsection 1, paragraph *"c,"* or subsection 2, paragraph *"c,"* if one of the following is met:

(1) The applicant meets the requirements contained in Iowa Code section 154D.2, subsection 1, paragraphs *"a"* and *"b,"* or subsection 2, paragraphs *"a"* and *"b,"* respectively.

(2) The applicant meets the requirements contained in Iowa Code section 154D.2, subsection 1, paragraph *"a,"* or subsection 2, paragraph *"a,"* and has 4,000 hours of employment experience in the practice of marital and family therapy or mental health counseling, respectively.

30.5(4) An applicant for licensure as a marital and family therapist under this rule must include with this application a sworn statement that the applicant has satisfied the requirements of rule 30.3(147,154D), along with required supporting documentation such as letters from supervisors, transcripts, and verification of continuing education.

30.5(5) An applicant for licensure as a mental health counselor must include with this application a sworn statement that the applicant has satisfied the requirements of rule 30.4(147,154D), along with required supporting documentation such as letters from supervisors, transcripts, and verification of continuing education.

30.5(6) An applicant shall submit the required fee in the form of a check or money order made payable to the Board of Behavioral Science Examiners. The application fee is nonrefundable.

30.5(7) Based on its review of the application and supporting documents, the board may require an oral examination of any applicant for licensure by endorsement. The applicant must pass the oral examination to the satisfaction of the board.

30.5(8) Applicants not meeting all requirements in this rule are required to meet all the requirements as set out in rules 30.2(147,154D) and 30.3(147,154D) or 30.4(147,154D), including taking or retaking the appropriate examination.

30.5(9) Applicants for a license to practice marital and family therapy or mental health counseling in Iowa will have their names and other identifying information submitted to the Association of Marital and Family Therapy Regulatory Boards for Marital and Family Therapy or the American Association of State Counseling Boards for Mental Health Counseling or both associations to determine disciplinary actions of other state regulatory boards.

645—30.6(147,154D) License renewal.

30.6(1) The biennial license renewal period shall extend from October 1 of each even-numbered year until September 30 of the next even-numbered year. Beginning October 1, 1998, the continuing education period shall extend from October 1 of each even-numbered year until September 30 of the next even-numbered year.

30.6(2) Licensees who have met continuing education requirements for the biennium and wish to have their licenses renewed shall complete the board-approved renewal form and the board-approved continuing education report and return them to professional licensure, department of public health by September 30 (even year) beginning September 30, 2000.

30.6(3) Late filing. Licensees who fail to submit the application for renewal and complete and appropriately document continuing education hours by September 30 (even year), beginning September 30, 2000, shall be required to pay a late filing fee and may be subject to an audit of their continuing education report.

30.6(4) Licensees who have not fulfilled the requirements for license renewal and who have not placed the license on inactive status by October 31 (even year) for the licensure biennium will have a lapsed license and shall not engage in the practice of marital and family therapy or mental health counseling as a licensed practitioner.

30.6(5) Individuals who were issued their initial license within six months of license renewal will not be required to renew their license until the next renewal two years later. Individuals will be required to report 40 hours of continuing education for their first renewal and every renewal thereafter.

645—30.7(147,154D) Inactive practitioners. A licensee who is not actively engaged in active practice as a licensed practitioner in the state of Iowa residing within or without the state of Iowa may place the license on inactive status and be granted a certificate of exemption upon written application to the board. The application shall contain a statement that the applicant will not engage in the practice of the profession as a licensed practitioner in Iowa without first complying with all provisions governing reinstatement after exemption (rule 30.8(147,154D)). The application for inactive status shall be submitted upon the form provided by the board.

645—30.8(147,154D) Reinstatement of inactive practitioners. Inactive practitioners who have been granted a certificate of exemption shall, prior to engaging in the practice of the profession as a licensed provider in the state of Iowa, satisfy the following requirements for reinstatement:

30.8(1) Submit written application for reinstatement to the board upon forms provided by the board.

30.8(2) Furnish in the application evidence of completion of a total number of hours of accredited continuing education computed by multiplying 20 by the number of years a certificate of exemption shall have been in effect for such applicant to a maximum of five renewal periods.

30.8(3) The board may require successful completion of an oral interview prior to reinstatement.

30.8(4) Pay only the current biennial license renewal fee and reinstatement fee.

30.8(5) Penalty fees otherwise incurred pursuant to Iowa Code section 147.10, and continuing education requirements applicable to the period prior to license reinstatement, shall be waived by the board for any previously licensed marital and family therapist or mental health counselor whose license has lapsed prior to July 1, 1998. Applicants with a lapsed license applying for reinstatement shall be required to complete a reinstatement application and pay a renewal fee and reinstatement fee pursuant to Iowa Code section 147.11 and section 147.80, subsections 21 and 22.

645—30.9(147,154D) Reinstatement of lapsed license. Those persons who have not placed their licenses on inactive status and have allowed their licenses to lapse shall satisfy the following requirements for reinstatement prior to practicing as a mental health counselor or marital and family therapist in the state of Iowa:

30.9(1) Submit written application for reinstatement to the board upon forms provided by the board.

30.9(2) Furnish with the application evidence of completion of all past due continuing education requirements to a maximum of five renewal periods.

30.9(3) Pay all past due renewal fees, penalty fees, the reinstatement fee and the current biennial license fee.

30.9(4) The board may require successful completion of an oral interview prior to reinstatement.

30.9(5) Those persons whose license has lapsed for more than one year shall also be required to complete the appropriate professional examination.

30.9(6) Penalty fees otherwise incurred pursuant to Iowa Code section 147.10, and continuing education requirements applicable to the period prior to license reinstatement, shall be waived by the board for any previously licensed marital and family therapist or mental health counselor whose license has lapsed prior to July 1, 1998. Applicants with a lapsed license applying for reinstatement shall be required to complete a reinstatement application and pay a renewal fee and reinstatement fee pursuant to Iowa Code section 147.11 and section 147.80, subsections 21 and 22.

645—30.10(147,154D) License fees. All fees are nonrefundable.

30.10(1) The application fee for a license to practice marital and family therapy issued on the basis of examination or endorsement is $100. The examination fee is an additional $160.

30.10(2) The application fee for a license to practice mental health counseling issued on the basis of examination or endorsement is $100. The examination fee is an additional $100.

30.10(3) The renewal fee of a license to practice for a biennial period is $100.

30.10(4) Penalty fee for failure to complete and return the renewal application by September 30 of even-numbered years is $50.

30.10(5) Penalty fee for failure to complete the required continuing education by September 30 of even-numbered years is $50. Failure to complete and return the continuing education report form by October 31 of even-numbered years is $25.

30.10(6) Reinstatement fee following inactive exemption or lapsed license is $100.

30.10(7) Fee for certified statement that a licensee is licensed in Iowa is $10.

30.10(8) Fee for failure to report, in writing, change of address after 30 days is $10.

30.10(9) Fee for failure to report change of name is $10.

30.10(10) Fee for duplicate license for display is $10.

30.10(11) Fee for a returned check is $15.

These rules are intended to implement Iowa Code chapters 147 and 154D.

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CHAPTER 31
CONTINUING EDUCATION AND DISCIPLINARY PROCESS

645—31.1(272C) Continuing education requirements.

31.1(1) It is the responsibility of each licensee to arrange for financing of costs of continuing education.

31.1(2) Each person licensed to practice marital and family therapy or mental health counseling in this state shall complete during each continuing education compliance period a minimum of 40 hours of continuing education approved by the board. Compliance with the requirement of continuing education is a prerequisite for license renewal for each subsequent license renewal period.

31.1(3) The continuing education compliance period shall be each biennium beginning October 1 of the even-numbered year to September 30 of the next even-numbered year. During the continuing education compliance period, attendance at sponsor-approved continuing education programs may be used as evidence of fulfilling the continuing education requirement for the subsequent biennial license renewal period beginning October 1.

31.1(4) Hours of continuing education credit may be obtained by attending and participating in a continuing education activity offered by a sponsor approved by the board. Hours of continuing education credit may also be obtained by attending and participating in a continuing education activity offered by a sponsor approved by the Iowa Board of Social Work Examiners or the Iowa Board of Psychology Examiners. Any nonapproved sponsor that meets the criteria set forth in rule 31.2(272C) will be subject to review by the board at the time of the audit.

31.1(5) Carryover credit of continuing education hours into the next continuing education period will not be permitted.

31:1(6) When an initial license is issued via examination, the new licensee is exempt from meeting the continuing education requirement for the continuing education biennium in which the license is issued.

31.1(7) Reinstated licenses and licensees through the interstate endorsement shall obtain 40 hours of continuing education credit for renewal of license if obtained in the first year of the continuing education biennium and 20 hours if license is obtained in the second year of the continuing education biennium.

645—31.2(272C) Standards for approval.

31.2(1) Continuing education is that board-approved education which is obtained by a licensee in order to maintain, improve, or expand skills and knowledge obtained prior to initial licensure or to develop new and relevant skills and knowledge. A continuing education activity which meets all of the following criteria is appropriate for continuing education credit if it:

a. Constitutes an organized program of learning (including a workshop or symposium) which contributes directly to the professional competency of the licensee; and

b. Pertains to common subject matters which integrally relate to the practice of the professions; and

c. Is conducted by individuals who have specialized education, training and experience by reason of which said individuals should be considered experts concerning the subject matter of the program, and is accompanied by a paper, manual or outline which substantively pertains to the subject matter of the program and reflects program schedule, goals and objectives. The board may request a curriculum vitae of presenters.

d. Fulfills stated program goals or objectives or both.

e. Provides proof of attendance to licensees in attendance including:

(1) Date, place, course title, presenter(s).

(2) Numbers of program contact hours. (One contact hour equals one hour of continuing education credit.)

(3) Official signature of program sponsor.

31.2(2) Continuing education credit may be granted for attendance at sponsor-approved workshops, conferences and symposiums and for academic coursework. Official transcripts indicating successful completion of academic courses which apply to the field of mental health counseling or marital and family therapy, as appropriate, will be necessary in order to receive the following continuing education credits:

One semester credit = 15 hours of continuing education credit;

One quarter credit = 10 hours of continuing education credit.

31.2(3) In addition to attendance at sponsor-approved workshops, conferences and symposiums and academic coursework, a maximum of 20 hours of continuing education credit may be granted for any of the following activities not to exceed a combined total of 20 hours:

a. Presenting professional programs which meet the criteria in 31.2(1). Two hours of credit will be awarded for each hour of presentation. A course schedule or brochure must be maintained for audit. Presentation at a professional program does not include teaching a class at an institution of higher learning at which the applicant is regularly and primarily employed. Presentations to lay public are excluded.

b. Scholarly research or other activities of which the results are published in a recognized professional publication. The scholarly research must be integrally related to the practice of the professions.

c. Publication in a refereed journal. The article in a refereed journal for which the licensee is seeking continuing education credit must be integrally related to the practice of the professions.

d. Distance learning conferences will be allowed if the following criteria are met:

(1) The program is offered through the Iowa Communications Network (ICN).

(2) The program allows for interaction between the presenter and the participants.

(3) The program meets all of the criteria of 31.2(1).

e. Home study courses will be allowed if the following criteria are met:

(1) The program is recognized by the National Board for Certified Counselors (NBCC) or meets all of the criteria of 31.2(1).

(2) A certificate of completion is presented after successful completion of course.

f. Viewing videotaped presentations will be allowed if the following criteria are met:

(1) There is a sponsoring group or agency.

(2) There is a facilitator or program official present.

(3) The program official may not be the only attendee.

(4) The program meets all of the criteria of 31.2(1).

g. Computer-assisted instructional courses or programs pertaining to the practice of mental health counseling or marital and family therapy will be allowed if the following criteria are met:

(1) The courses and programs are approved by the National Board for Certified Counselors (NBCC) or its affiliates or meets all of the criteria of 31.2(1).

(2) A certificate of completion that includes the following information is presented after successful completion of the course:

1. Date course/program was completed.
2. Title of course/program.
3. Number of course/program contact hours.
4. Official signature of course/program sponsor.

645—31.3(272C) Accreditation of sponsors.

31.3(1) *Standards for accreditation of sponsors.* An organization, institution, agency or individual shall be qualified for approval as a sponsor of continuing education activities if the board determines that:

a. The sponsor presents organized programs of learning; and

b. The sponsor presents subject matters which integrally relate to the practice of mental health counseling or marital and family therapy or both; and

c. The sponsor's program activities contribute to the professional competency of the licensee; and

d. The sponsor's program presenters are individuals who have specialized education, training or experience by reason of which said individuals may be considered qualified to present the subject matter of the programs.

31.3(2) *Procedures for accreditation of sponsors.*

a. An institution, organization, agency or individual desiring to be designated as an accredited sponsor of continuing education activities shall apply for accreditation to the board stating its education history, subjects offered, total hours of instruction presented, and the names and qualifications of instructors. If approved by the board, such institution, organization, agency or individual shall be designated as an accredited sponsor of continuing education activities, and the activities of such an approved sponsor which are relevant to mental health counseling and marital and family therapy shall be deemed automatically approved for continuing education credit. By January 31 of each year, commencing January 31, 1995, all accredited sponsors shall report to the board in writing the education programs conducted during the preceding calendar year on a form approved by the board.

b. All accredited sponsors shall issue a certificate of attendance to each licensee who attends a continuing education activity. The certificate shall include sponsor name and number; date of program; name of participant; total number of clock hours excluding introductions, breaks, and meals; program title and presenter; program site; and whether the program is approved for mental health counseling, marital and family therapy, or both.

c. All accredited sponsors shall keep on file for three years a list of attendees, license numbers, number of continuing education clock hours, and a program description and objectives.

31.3(3) *Review of accredited sponsors and programs.*

a. The board may monitor and review any continuing education program already approved by the accredited sponsor. Upon evidence of significant variation in the program presented from the program approved, the board may disapprove all or any part of the approved hours granted by the program.

b. The board may at any time reevaluate an accredited sponsor. If after such reevaluation the board finds there is a basis for consideration of revocation of the accreditation of a sponsor, the board shall give notice by ordinary mail to that sponsor of a hearing on such possible revocation at least 30 days prior to the hearing.

645—31.4(272C) Reporting continuing education credits.

31.4(1) A report of continuing education activities shall be submitted on a board-approved form with the application for renewal by September 30 of the even-numbered years beginning September 30, 1996. Beginning September 30, 2000, all continuing education activities submitted must be completed by September 30 of the even-numbered year as specified in 645—subrules 30.6(1) and 31.1(3) or a late fee will be assessed as provided in 645—subrule 30.10(5).

31.13(4) The licensee or the board may seek an informal stipulation or settlement of the case at the time of the informal interview. If the parties agree to an informal settlement at the investigative interview, a statement of charges shall be filed simultaneously with the settlement document. The chairperson or the chairperson's designee may negotiate on behalf of the board. All informal settlements are subject to approval of a majority of the full board. If approved, the informal settlement becomes the final disposition of the matter and is a public record.

31.13(5) No board member is disqualified from participating in an adjudication of any resulting contested case by virtue of participating in an informal licensee interview.

31.13(6) In the event a settlement is not reached after an informal interview and a statement of charges is filed, the poststatement of charges settlement procedure set forth in rule 31.14(147,154D,272C) may still be utilized.

645—31.14(147,154D,272C) Alternative procedure. A disciplinary hearing before the licensing board is an alternative to the procedure in Iowa Code sections 147.58 to 147.71.

31.14(1) *Informal settlement—procedure and parties.*

a. A contested case may be resolved by informal settlement. Negotiation of an informal settlement may be initiated by the state of Iowa represented by the prosecuting attorney, the respondent, or the board. The board shall designate a board member with authority to negotiate on behalf of the board.

b. The full board is not involved in negotiation until presentation of a final, written form to a quorum of the board for approval.

31.14(2) *Waiver of notice and opportunity to be heard.* Consent to negotiation by the respondent constitutes a waiver of notice and opportunity to be heard pursuant to Iowa Code section 17A.17 during informal settlement negotiation. Thereafter, the prosecuting attorney is authorized to discuss informal settlement with the board's designee.

31.14(3) *Board approval.* All informal settlements are subject to approval of a majority of the full board. No informal settlement shall be presented to the board for approval except in final, written form executed by the respondent. If the board fails to approve the informal settlement, it shall be of no force or effect to either party.

31.14(4) *Disqualification of designee.* A board member who is designated to act in negotiation of an informal settlement is disqualified from participating in the adjudication of the contested case.

645—31.15(147,154D,272C) License denial. Any request for a hearing before the board concerning the denial of a license shall be submitted by the applicant, in writing, to the board by certified mail, return receipt requested, within 30 days of the mailing of a notice of denial of license. License denial means a board determination during any stage of the license application process that the applicant is not qualified to proceed with the licensing process.

645—31.16(17A,147,154D,272C) Hearings open to the public. A hearing of a licensing board concerning a licensee or an applicant shall be open to the public unless, in the case of a license disciplinary hearing, the licensee or the licensee's attorney requests in writing that the hearing be closed to the public. The hearing shall be conducted in accordance with the rules of procedure set out in 645—Chapter 32.

645—31.17(17A,147,154D,272C) Judicial review. Judicial review of the board's action may be sought in accordance with the terms of the Iowa administrative procedure Act, from and after the date of the board's decision. It is not necessary to request a rehearing before the board to appeal to the district court.

645—31.18(147,154D,272C) Publication of decisions. Final decisions of the board relating to disciplinary proceedings shall be transmitted to the appropriate professional association, the news organizations identified on the media list, the employer, and other persons who request the decisions.

645—31.19(147,154D,272C) Peer review committees.

31.19(1) Peer review committees for the profession may register with the board of examiners within 30 days after formation.

31.19(2) Peer review committees shall report in writing (confidential information within 30 days of the action) any disciplinary action taken against a licensee by the peer review committee.

31.19(3) The board may appoint peer review committees as needed consisting of not more than five persons who are licensed to practice the profession to advise the board on standards of practice and other matters relating to specific complaints as requested by the board. The peer review committee shall observe the requirements of confidentiality provided in Iowa Code chapter 272C.

645—31.20(147,154D,272C) Conduct of persons attending meetings.

31.20(1) The person presiding at a meeting for the board may exclude a person from an open meeting for behavior that obstructs the meeting.

31.20(2) Camera and recording devices may be used at open meetings provided they do not obstruct the meeting. If the user of a camera or recording device obstructs the meeting by the use of such device, the person presiding may request the person to discontinue use of the camera or device. If the person persists in use of the device or camera, that person shall be ordered excluded from the meeting by order of the board member presiding at the meeting.

These rules are intended to implement Iowa Code chapters 17A, 147, 154D, and 272C.

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CHIROPRACTIC

CHAPTER 40
CHIROPRACTIC EXAMINERS
[Prior to 7/29/87, Health Department[470] Ch 141]

GENERAL

645—40.1(151) Definitions. The following definitions shall be applicable to the rules of the Iowa board of chiropractic examiners:

"Accredited sponsor" means an Iowa board of chiropractic examiners approved college (refer to Iowa Code section 151.4 and rule 40.11(151), Iowa Administrative Code) or an approved nonprofit organization sponsoring continuing education activities which has been accredited by the board as a sponsor pursuant to these rules.

"Active licensee" means any person licensed to practice chiropractic in Iowa who has met all conditions of license renewal and maintains a current license to practice in this state.

"Adjustment/manipulation of neuromusculoskeletal structures" means use by a doctor of chiropractic of a skillful treatment based upon differential diagnosis of neuromusculoskeletal structures and procedures related thereto by the use of passive movements with the chiropractic physician's hands or instruments in a manipulation of a joint by thrust so the patient's volitional resistance cannot prevent the motion. The manipulation is directed toward the goal of restoring joints to their proper physiological relationship of motion and related function. Movement of the joint is by force beyond its active limit of motion, but within physiologic integrity. Adjustment or manipulation commences where mobilization ends and specifically begins when the elastic barrier of resistance is encountered by the doctor of chiropractic and ends at the limit of anatomical integrity. Adjustment or manipulation as described in this definition is directed to the goal of the restoration of joints to their proper physiological relationship of motion and related function, release of adhesions or stimulation of joint receptors. Adjustment or manipulation as described in this definition is by hand or instrument. The primary emphasis of this adjustment or manipulation is upon specific joint element adjustment or manipulation and treatment of the articulation and adjacent tissues of the neuromusculoskeletal structures of the body and nervous system, using one or more of the following:

1. Impulse adjusting or the use of sudden, high velocity, short amplitude thrust of a nature that patient volitional resistance is overcome, commencing where the motion encounters the elastic barrier of resistance and ends at the limit of anatomical integrity.
2. Instrument adjusting, utilizing instruments specifically designed to deliver sudden, high velocity, short amplitude thrust.
3. Light force adjusting, utilizing sustained joint traction or applied directional pressure, or both, which may be combined with passive motion to restore joint mobility.
4. Long distance lever adjusting, utilizing forces delivered at some distance from the dysfunctional site and aimed at transmission through connected structures to accomplish joint mobility.

"Anatomic barrier" means the limit of motion imposed by anatomic structure; the limit of passive motion.

"Approved program or activity" means a continuing education program activity meeting the standards set forth in these rules. All continuing education activities classified as such by the accredited sponsor shall be deemed automatically approved.

"Board" shall mean the board of chiropractic examiners of the state of Iowa.

"C.C.E. (Council on Chiropractic Education)" shall mean the Educational Standards of Chiropractic Colleges and bylaws which are on file in the office, Iowa Department of Public Health, Lucas State Office Building, Des Moines, Iowa 50319-0075, and in accordance with 17A.6(3), a copy may be obtained for the actual cost of reproduction.

"Chiropractic intern" means a chiropractic student of an approved college of chiropractic in the student's last academic quarter, semester, or trimester of study, who is eligible for graduation from the college of chiropractic except for completion of a preceptorship program.

"Chiropractic manipulation" means care of an articular dysfunction or neuromusculoskeletal disorder by manual or mechanical adjustment of any skeletal articulation and contiguous articulations.

"Chiropractic practice Acts" shall mean Iowa Code chapter 151 and those provisions of the Iowa Code which incorporate by explicit reference to the practice of chiropractic.

"Chiropractic preceptor" means a chiropractic physician licensed and practicing in Iowa pursuant to Iowa Code chapter 151, who accepts a chiropractic student into the practice for the purpose of providing the chiropractic student with a clinical experience of the practice of chiropractic.

"Chiropractic resident" means a graduate chiropractic physician who has received a doctor of chiropractic degree from a college of chiropractic approved by the board.

"Chiropractic student" means a student of an approved college of chiropractic.

"Continuing education" means that education which is obtained by a person licensed to practice chiropractic in order to maintain, improve, or expand skills and knowledge obtained prior to initial licensure or to develop new and relevant skills and knowledge.

"Department" shall mean the Iowa department of public health.

"Differential diagnosis" means to examine the body systems and structures of a human subject to determine the source, nature, kind or extent of a disease, vertebral subluxation, neuromusculoskeletal disorder or other physical condition, and to make a determination of the source, nature, kind, or extent of a disease or other physical condition.

"Director" shall mean the director of public health.

"Disciplinary proceeding" shall mean any proceeding under the authority of the board pursuant to which licensee discipline may be imposed.

"Elastic barrier" means the range between the physiologic and anatomic barrier of motion in which passive ligamentous stretching occurs before tissue disruption.

"Elective credit hours" means programs for continuing education which do not require board review for relevance to chiropractic practice in the state of Iowa, but must be related to the chiropractic profession, the public, or community health in general.

"Extremity manipulation" means a corrective thrust or maneuver by a doctor of chiropractic by hand or instrument based upon differential diagnosis of neuromusculoskeletal structures applied to a joint of the appendicular skeleton.

"Hour of continuing education" means a clock hour spent after July 1, 1978, by a licensee in actual attendance at or completion of an approved continuing education activity.

"Inactive licensee" means any person licensed to practice chiropractic in Iowa who has met all conditions of officially placing the license on inactive status and may not practice chiropractic until the reentry requirements as defined in these rules are met.

"License" shall mean a certificate issued to a person licensed to practice chiropractic under the laws of this state.

"Licensee" shall mean a person licensed to practice chiropractic.

"Licensee discipline" or *"discipline"* shall mean any sanction the board may impose upon its licensees for conduct which threatens or denies persons of this state a high standard of professional care.

"Malpractice" shall mean any error or omission, unreasonable lack of skill, or failure to maintain a reasonable standard of care by a chiropractic physician in the practice of the profession.

"Mobilization" means movement applied singularly or repetitively within or at the physiological range of joint motion, without imparting a thrust or impulse, with the goal of restoring joint mobility.

"Nondesignated credit hours" means programs offered by non-CCE-approved institutions or non-IBCE-approved institutions, organizations or foundations which may be acceptable in fulfilling IBCE continuing education requirements.

"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 and the examination for licensure and licensure of any person under the laws of this state.

"Peer review" shall mean evaluation of professional services rendered by a professional practitioner.

"Peer review committee" shall mean one or more persons acting in a peer review capacity who have been appointed by the board for such purpose.

"Physiologic barrier" means the limit of active motion, which can be altered to increase range of active motion by warm-up activity.

"Preceptorship practice" means the chiropractic practice of a single chiropractic physician or group of chiropractic physicians in a particular business or clinic, into which a licensed practicing chiropractic physician has accepted a chiropractic intern for the limited purpose of providing the chiropractic intern with a clinical experience in the practice of chiropractic.

"Prescribed credit hours" means continuing education programs approved by the Iowa board of chiropractic examiners for sponsorship of continuing education material in the state of Iowa.

"Profession" shall mean chiropractic.

"Respondent" shall mean any individual(s) who shall be charged in a complaint with a violation of professional ethics or practice or both.

"Rule" shall mean a requirement, procedure, or standard of general applicability prescribed by the board relating to either the administration or enforcement of the chiropractic profession.

645—40.2(151) Description of board. The purpose of the board of chiropractic examiners is to administer, interpret and enforce the provisions of Iowa Code chapter 151 and those other provisions of the Iowa Code which incorporate by explicit or implicit reference the practice of chiropractic. These powers include but are not limited to the examination of candidates, determining the eligibility of candidates for licensure by examination and endorsement, investigating violations and infractions of the laws relating to the practice of chiropractic, and revoking, suspending or otherwise disciplining a chiropractic physician who has violated the provisions of the chiropractic practice Acts.

645—40.3(151) Organization of board. The board is comprised of five members licensed to practice chiropractic and two representatives of the general public. The members are appointed by the governor and confirmed by the senate. The term of office is for three years. The board:

40.3(1) Is a policymaking body relative to matters involving chiropractic education and licensure, postgraduate training and discipline.

40.3(2) Conducts business according to established policy as approved by the members.

40.3(3) Organizes annually and elects a chairperson, vice chairperson, superintendent of examinations, and a secretary from its membership.

a. *"Chairperson"* shall preside at all meetings of the board. Shall have power to vote. Shall appoint committees when necessary to study issues, and shall follow Robert's Rules of Order.

5. The chiropractic physician preceptor will supervise no more than one chiropractic intern or chiropractic resident for the duration of a given preceptorship period.

6. The chiropractic physician preceptor will exercise direct, on-premises supervision of the chiropractic intern or chiropractic resident at all times during which the chiropractic intern or chiropractic resident is engaged in any facet of patient care in the chiropractic physician preceptor's clinic.

e. Termination of preceptorship. A preceptorship shall terminate upon the occurrence of the earliest applicable of the following events.

(1) For a chiropractic intern participating in a preceptorship program, graduation from the college of chiropractic operating the program.

(2) For a chiropractic resident participating in a postgraduate preceptorship program, the passage of 12 months since graduation from a board-approved college of chiropractic.

(3) For either a chiropractic intern preceptorship or a chiropractic resident preceptorship, any of the following:

1. The filing of formal disciplinary decisions against a chiropractic preceptor, the nature of which is a criminal offense and the circumstances of which substantially relate to the practice of chiropractic.

2. The filing of formal disciplinary decisions against a chiropractic physician preceptor for violation of statutes or administrative rules pertaining to the practice of chiropractic.

3. The granting of a malpractice award against a chiropractic physician preceptor in a civil action for malpractice.

40.11(5) The student enrolled at an approved chiropractic college in the state of Iowa will be able to treat patients under the license of the clinic director or designated licensed doctor associated with the clinic of the college who must be a currently licensed Iowa chiropractic physician and the board so notified of the name of the doctor. The clinic will operate under the license of the clinic director or designated licensed doctor associated with the clinic.

645—40.12(151) General requirements.

40.12(1) Beginning July 1, 1982, the licensure period shall be from July 1 of the even-numbered year to June 30 of the subsequent even-numbered year.

40.12(2) The board shall assess a penalty equal to the renewal fee if more than 30 days have passed since the expiration date.

40.12(3) Any licensee who allows the license to lapse by failing to renew within one year of the expiration date shall be required to pay the penalty set forth in 40.12(2) and all past renewal fees then due provided the fees shall not exceed $500 as computed by the board and show evidence of 30 hours of accredited continuing education for each lapsed year, which constitutes an organized program of learning, and which contributes directly to the professional competency of the licensee. The hours need not exceed 90 hours for reinstatement, if obtained within the past two years, except when there is a demonstrated deficiency for specialized education as determined by the board through a personal interview with the applicant. A licensee may be reinstated without examination upon approval by the board.

40.12(4) The board may affiliate with the Federation of Chiropractic Licensing Boards.

40.12(5) Any official action or vote of the board taken by mail or by other means shall be preserved by the board administrator in the same manner as the minutes of the regular meetings.

40.12(6) Any legal proceedings where applicable shall be conducted in a manner as stipulated in Iowa Code chapters 17A, 147, 151.

40.12(7) Persons licensed to practice chiropractic shall keep their license publicly displayed in the primary place of practice. When a person licensed to practice chiropractic changes residence or place of practice, notification shall be sent to the Iowa Board of Chiropractic Examiners, Lucas State Office Building, Des Moines, Iowa 50319-0075.

40.12(8) Every license to practice chiropractic shall expire in multiyear intervals and be renewed as determined by the board upon application by the licensee, without exception. Application for renewal shall be made in writing to the board accompanied by the required fee at least 30 days prior to the expiration of such license. Every renewal shall be displayed in connection with the original license. The board shall notify each licensee by mail prior to the expiration of a license. Failure to renew the license within a reasonable time after the expiration shall not invalidate the license, but a reasonable penalty may be assessed by the board.

This rule is intended to implement Iowa Code sections 147.7, 147.9 and 147.10.

645—40.13(151) Rules for conducting examinations.

40.13(1) The applicant shall submit a completed application on a form prescribed by the board with required credentials and fee. The completed application must include the following:

a. A photostatic copy of chiropractic diploma (no larger than 8½ x 11 inches) from an approved college or a letter of graduation intent from a college registrar within 120 days of examination date. However, no license to practice will be issued until the board administrator has received a copy of the signed diploma.

b. Rescinded IAB 2/12/97, effective 3/19/97.

c. Official transcript of grades of the National Board of Chiropractic Examiners.

d. The applicant shall have received certification from the National Board of Chiropractic Examiners attesting to the successful completion of the required examination after July 1, 1973, or a basic science certificate issued prior to July 1, 1973.

(1) Effective August 1, 1976, all electives of the National Board examination are required.

(2) Effective January 1, 1987, Part III of the National Board examination is required.

(3) Effective January 1, 1996, Part IV of the National Board examination is required.

e. Each applicant shall submit three written character references on the application. The references shall not be from members of the chiropractic profession.

f. Each applicant must include a record of the number and date of chiropractic license obtained in other states, if any, 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.

g. Each application shall include a chronologic statement as to all the places where the candidate has practiced, if any, type of practice engaged in and the period of time so engaged.

h. One passport-size photograph of the applicant taken within the previous six months.

i. A final transcript sent directly from a board-approved college of chiropractic.

40.13(2) Any candidate applying for licensure may be required to appear for a personal interview before the board or before a member thereof.

40.13(3) The board shall require written, oral or practical examinations of any applicant.

40.13(4) Any candidate who fails the examination may take a second examination at a regularly scheduled examination upon payment of the examination fee. The candidate shall be required to repeat the entire examination if a previous examination is failed. Additional repeats of the examination are permitted at the discretion of the board.

40.13(5) Examinations given by the board will be held at a location and time specified by the board.

40.13(6) All applicants matriculating after October 1, 1975, will be graduated from a college having status with the C.C.E. (Council on Chiropractic Education) as of the date of the applicant's graduation. (See 40.11(151).)

645—40.14(151) Licensure by reciprocity or endorsement.

40.14(1) Each applicant shall submit a completed application form accompanied by a fee of $100.

40.14(2) A license to practice chiropractic by reciprocity or by endorsement may be issued on the basis of an examination in substantially all of the subjects required by this board given by a state examining board having reciprocal or endorsement relations with the board, provided, however, that the applicant must comply with all other requirements for licensure by examination in this state.

40.14(3) If any state with which this state has reciprocal or endorsement relations, 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.

40.14(4) The statement 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.

40.14(5) In all cases the board reserves the right to review the examination papers and grades upon which reciprocal or endorsement certification may be granted before accepting the same.

40.14(6) No reciprocal license or license by endorsement shall be issued except on the basis of a license received by examination. The applicant must have had two years of full-time practice before applying for license by reciprocity or endorsement.

40.14(7) Rescinded IAB 8/19/92, effective 9/23/92.

40.14(8) Rescinded IAB 8/19/92, effective 9/23/92.

40.14(9) The chiropractic examiners may require written, oral or a practical examination of any applicant for licensure by reciprocity or endorsement.

645—40.15(151) License renewal date. A license to practice chiropractic shall expire on the thirtieth of June of every even-numbered year.

645—40.16(151) License-examination-renewal fees. The following fees shall be collected by the board:

40.16(1) For the basic application fee required of all applicants, $50. For a license to practice chiropractic, issued upon the basis of examination given by the chiropractic examiners, $225.

40.16(2) For the biennial renewal fee of a license to practice chiropractic, $100. Renewal fees shall be received by the board before the end of the last month of the renewal period.

40.16(3) For a certified statement that a licensee is licensed in this state, $10.

40.16(4) For a duplicate license, which shall be so designated on its face, upon satisfactory proof the original license issued by the Iowa department of public health has been destroyed or lost, or if necessary for display in additional place of practice, $10.

40.16(5) For a penalty fee for failure to complete required continuing education within the compliance period, $100.

This rule is intended to implement Iowa Code section 147.80.

645—40.17(151) Specified forms to be used. All applications for examinations, certificates and licenses shall be on forms prescribed by the board. These forms may include, but not be limited to, the following, and where practicable, any one or more of the following forms may be consolidated into a single form.

Board Form:	Form Title:
1.	Application for a license to practice chiropractic on the basis of examination.
2.	Application for reinstatement of license to practice chiropractic.
3.	Application for renewal of a chiropractic license.
4.	Complaint form.
5.	Report of continuing chiropractic education.
6.	Certificate of exemption from continuing education requirements.
7.	Application for waiver of minimum education requirements due to disability or illness.

645—40.18(151) Temporary certificate.

40.18(1) The board may, in its discretion, issue a temporary certificate authorizing the applicant to practice chiropractic whenever, in the opinion of the board, a need exists and the applicant possesses the qualifications prescribed by the board for the certificate, which shall be substantially the same as those required under Iowa Code chapter 151. A temporary certificate shall be issued for one year and, at the discretion of the board, may be annually renewed, not to exceed two additional years, at a fee of $100 per year. The board may require completion of continuing education hours for renewal of a temporary certificate.

40.18(2) Each applicant shall:

a. Submit a completed application on a form prescribed by the board with required credentials and fee. The completed application must be on file at least 30 days prior to the date of the examination and must include the following:

(1) A photostatic copy of chiropractic diploma (no larger than 8½ x 11 inches) from an approved college or a letter of graduation intent from a college registrar within 120 days of examination date. However, no license to practice will be issued until the board administrator has received a copy of the signed diploma.

(2) A final transcript sent directly from a board-approved college of chiropractic.

(3) Official transcript of grades of the National Board of Chiropractic Examiners.

b. Submit documentation from the National Board of Chiropractic Examiners attesting to the successful completion of the required examination after July 1, 1973, or a basic science certificate issued prior to July 1, 1973.

(1) Effective August 1, 1976, all electives of the National Board examinations are required.

(2) Effective January 1, 1987, Part III of the National Board examinations is required.

(3) Effective January 1, 1996, Part IV of the National Board examinations is required.

c. Submit three written character references on the application form. The references shall not be from members of the chiropractic profession.

d. Include a record of the number and date of chiropractic license(s) obtained in other states, if any, 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.

e. Include a chronological statement as to all the places where the candidate has practiced, if any, type of practice engaged in and the period of time so engaged.

f. Submit two copies of a passport-size photograph of the applicant taken within the previous six months.

40.18(3) Applicants may be required to satisfactorily complete a written, oral, or practical examination. In any case, the board may require the applicant to appear for a personal interview before the board or a member of the board.

40.18(4) The temporary certificate may be canceled at any time without a hearing for reasons deemed sufficient to the board. The certificate may be canceled:

a. For any of the grounds for which licensee discipline may be imposed.

b. If the temporary certificate holder applies for a permanent license, is examined, and fails the examination.

Cancellation will be effective three days after mailing the notice of cancellation by registered mail.

This rule is intended to implement Iowa Code section 151.12.

UTILIZATION AND COST CONTROL REVIEW

645—40.19(514F) Utilization and cost control review.

40.19(1) The board shall establish U.C.C.R. (Utilization and Cost Control Review) committee(s). The name(s) of the committee(s) shall be on file with the board and available to the public. The designation of the committee(s) shall be reviewed annually.

40.19(2) Members of the U.C.C.R. committee shall:

a. Hold a current license.

b. Have practiced chiropractic in the state of Iowa for a minimum of five years prior to appointment.

c. Be actively involved in a chiropractic practice during the term of appointment as a U.C.C.R. committee member.

d. Have no pending board disciplinary actions or discipline taken during the three years prior to appointment and no discipline pending or taken during the period of appointment.

e. Have no malpractice awards granted against the appointed committee member during the three years prior to appointment or during the period of appointment.

f. Not assist in the review or adjudication of claims in which the committee member may reasonably be presumed to have a conflict of interest.

g. Have completed a utilization review course that has been previously approved by the board.

40.19(3) Procedures for utilization and cost control review. A request for review may be made to the board by any person governed by the various chapters of Title XX of the Code, self-insurers for health care benefits to employees, other third-party payers, chiropractic patients or licensees.

a. There shall be a reasonable fee, as established by the board, for services rendered, which will be made payable directly to the U.C.C.R. committee. The committee shall make a yearly accounting to the board.

b. A request for service shall be submitted to the executive director of the U.C.C.R. committee on an approved submission form and shall be accompanied by four copies of all information. All references to identification and location of patient and doctor shall be deleted and prepared for blind review by the executive director of the U.C.C.R. committee. The information shall be forwarded to the U.C.C.R. committee.

c. The U.C.C.R. committee shall respond in writing to the parties involved with its findings and recommendations within 90 days. The committee shall review the appropriateness of levels of treatment and give an opinion as to the reasonableness of charges for diagnostic or treatment services rendered as requested. The U.C.C.R. committee shall submit a quarterly report of their activities to the board. The U.C.C.R. committee shall meet at least annually with the board chair or the board chair's designee.

40.19(4) Types of cases reviewed shall include:

a. Utilization.

(1) Frequency of treatment,

(2) Amount of treatment,

(3) Necessity of service,

(4) Appropriateness of treatment.

b. Usual and customary service.

40.19(5) Criteria for review may include but are not limited to:

a. Was diagnosis compatible and consistent with information?

b. Were X-ray and other examination procedures adequate, or were they insufficient or nonrelated to history or diagnosis?

c. Were clinical records adequate, complete, and of sufficient frequency?

d. Was treatment consistent with diagnosis?

e. Was treatment program consistent with scientific knowledge and academic and clinical training in accredited chiropractic colleges?

f. Were charges reasonable and customary for the service?

40.19(6) Members of the U.C.C.R. committee shall observe the requirements of confidentiality imposed by Iowa Code chapter 272C.

40.19(7) Action of the U.C.C.R. committee does not constitute an action of the board.

This rule is intended to implement Iowa Code sections 514F.1 and 514F.2.

645—40.20 Reserved.

DISCIPLINE

645—40.21(151,272C) General. The board has authority to impose discipline for any violation of the chiropractic practice Acts or the rules promulgated thereunder. The board also has authority to impose discipline for violations of other provisions of the Iowa Code and the other rules promulgated thereunder to the extent said provisions concern the practice of chiropractic.

645—40.22(151,272C) Method of discipline. The board has authority to impose the following disciplinary sanctions:

a. Revocation of license.

b. Suspension of license until further order of the board or for a specified period.

c. Prohibit permanently, until further order of the board or for a specified period, the engaging in specified procedures, methods or acts.

d. Probation.

e. Require additional education or training.

f. Require a reexamination.

g. Impose civil penalties not to exceed $1,000.

h. Issue citation and warning.

i. Such other sanctions allowed by law as may be appropriate.

645—40.23(272C) Discretion of board. The following factors may be considered by the board in determining the nature and severity of the disciplinary sanction to be imposed:

a. The relative seriousness of the violation as it relates to assuring the citizens of this state a high standard of professional care.

b. The facts of the particular violation.

c. Any extenuating circumstances or other countervailing considerations.

d. Number of prior violations or complaints.

e. Seriousness of prior violations or complaints.

f. Whether remedial action has been taken.

g. Such other factors as may reflect upon the competency, ethical standards and professional conduct of the licensee.

UTILIZATION AND COST CONTROL REVIEW

645—40.19(514F) Utilization and cost control review.

40.19(1) The board shall establish U.C.C.R. (Utilization and Cost Control Review) committee(s). The name(s) of the committee(s) shall be on file with the board and available to the public. The designation of the committee(s) shall be reviewed annually.

40.19(2) Members of the U.C.C.R. committee shall:

a. Hold a current license.

b. Have practiced chiropractic in the state of Iowa for a minimum of five years prior to appointment.

c. Be actively involved in a chiropractic practice during the term of appointment as a U.C.C.R. committee member.

d. Have no pending board disciplinary actions or discipline taken during the three years prior to appointment and no discipline pending or taken during the period of appointment.

e. Have no malpractice awards granted against the appointed committee member during the three years prior to appointment or during the period of appointment.

f. Not assist in the review or adjudication of claims in which the committee member may reasonably be presumed to have a conflict of interest.

g. Have completed a utilization review course that has been previously approved by the board.

40.19(3) Procedures for utilization and cost control review. A request for review may be made to the board by any person governed by the various chapters of Title XX of the Code, self-insurers for health care benefits to employees, other third-party payers, chiropractic patients or licensees.

a. There shall be a reasonable fee, as established by the board, for services rendered, which will be made payable directly to the U.C.C.R. committee. The committee shall make a yearly accounting to the board.

b. A request for service shall be submitted to the executive director of the U.C.C.R. committee on an approved submission form and shall be accompanied by four copies of all information. All references to identification and location of patient and doctor shall be deleted and prepared for blind review by the executive director of the U.C.C.R. committee. The information shall be forwarded to the U.C.C.R. committee.

c. The U.C.C.R. committee shall respond in writing to the parties involved with its findings and recommendations within 90 days. The committee shall review the appropriateness of levels of treatment and give an opinion as to the reasonableness of charges for diagnostic or treatment services rendered as requested. The U.C.C.R. committee shall submit a quarterly report of their activities to the board. The U.C.C.R. committee shall meet at least annually with the board chair or the board chair's designee.

40.19(4) Types of cases reviewed shall include:

a. Utilization.

(1) Frequency of treatment,

(2) Amount of treatment,

(3) Necessity of service,

(4) Appropriateness of treatment.

b. Usual and customary service.

40.19(5) Criteria for review may include but are not limited to:

a. Was diagnosis compatible and consistent with information?

b. Were X-ray and other examination procedures adequate, or were they insufficient or nonrelated to history or diagnosis?

c. Were clinical records adequate, complete, and of sufficient frequency?

d. Was treatment consistent with diagnosis?

e. Was treatment program consistent with scientific knowledge and academic and clinical training in accredited chiropractic colleges?

f. Were charges reasonable and customary for the service?

40.19(6) Members of the U.C.C.R. committee shall observe the requirements of confidentiality imposed by Iowa Code chapter 272C.

40.19(7) Action of the U.C.C.R. committee does not constitute an action of the board.

This rule is intended to implement Iowa Code sections 514F.1 and 514F.2.

645—40.20 Reserved.

DISCIPLINE

645—40.21(151,272C) General. The board has authority to impose discipline for any violation of the chiropractic practice Acts or the rules promulgated thereunder. The board also has authority to impose discipline for violations of other provisions of the Iowa Code and the other rules promulgated thereunder to the extent said provisions concern the practice of chiropractic.

645—40.22(151,272C) Method of discipline. The board has authority to impose the following disciplinary sanctions:

a. Revocation of license.

b. Suspension of license until further order of the board or for a specified period.

c. Prohibit permanently, until further order of the board or for a specified period, the engaging in specified procedures, methods or acts.

d. Probation.

e. Require additional education or training.

f. Require a reexamination.

g. Impose civil penalties not to exceed $1,000.

h. Issue citation and warning.

i. Such other sanctions allowed by law as may be appropriate.

645—40.23(272C) Discretion of board. The following factors may be considered by the board in determining the nature and severity of the disciplinary sanction to be imposed:

a. The relative seriousness of the violation as it relates to assuring the citizens of this state a high standard of professional care.

b. The facts of the particular violation.

c. Any extenuating circumstances or other countervailing considerations.

d. Number of prior violations or complaints.

e. Seriousness of prior violations or complaints.

f. Whether remedial action has been taken.

g. Such other factors as may reflect upon the competency, ethical standards and professional conduct of the licensee.

645—40.24(272C) Grounds for discipline. The board may impose any of the disciplinary sanctions set forth in rule 40.22(151,272C) including civil penalties in an amount not to exceed $1,000, when the board determines that the licensee is guilty of the following acts or offenses:

40.24(1) Fraud in procuring a license.

a. Fraud in procuring a license includes, but is not limited to, an intentional perversion of the truth in making application for a license to practice chiropractic and includes false representations of a material fact, whether by word or by conduct, by false or misleading allegations, or by concealment of that which should have been disclosed when making application for a license in this state, or attempting to file or filing with the board or the state department of health any false or forged diploma, or certificate or affidavit or identification or qualification in making an application for a license in this state.

b. Reserved.

40.24(2) Professional incompetency.

a. Professional incompetency includes, but is not limited to:

(1) A substantial lack of knowledge or ability to discharge professional obligations within the scope of the chiropractic physician's practice;

(2) A substantial deviation by the chiropractic physician from the standards of learning or skill ordinarily possessed and applied by other chiropractic physicians in the state of Iowa acting in the same or similar circumstances;

(3) A failure by a chiropractic physician to exercise in a substantial respect that degree of care which is ordinarily exercised by the average chiropractic physician in the state of Iowa acting in the same or similar circumstances;

(4) A willful or repeated departure from or the failure to conform to the minimal standard or acceptable and prevailing practice of chiropractic in the state of Iowa.

(5) Failure to maintain clinical and fiscal records in support of services rendered for a minimum of five years from one of the following dates as applicable. For the purposes of this rule, clinical records shall include all laboratory and diagnostic imaging studies.

1. For an adult patient in an uncontested case, the last office visit.
2. For a minor patient in an uncontested case, the last office visit plus the age of 18 years.

(6) Failure to comply with the health department standards for radiation-emitting equipment as used by a doctor of chiropractic, set forth in Iowa Code chapter 136C.

b. Reserved.

40.24(3) Knowingly making misleading, deceptive, untrue or fraudulent representations in the practice of a profession or engaging in unethical conduct or practice harmful or detrimental to the public. Proof of actual injury need not be established.

a. Knowingly making misleading, deceptive, untrue or fraudulent representations in the practice of a profession includes, but is not limited to, an intentional perversion of the truth, either orally or in writing, by a chiropractic physician in the practice of chiropractic and includes any representation contrary to the chiropractic physician's legal or equitable duty, trust or confidence and is deemed by the board to be contrary to good conscience, prejudicial to the public welfare and may operate to the injury of another. Activities under this paragraph include, but are not limited to:

(1) Alleging superiority in any way.
(2) Guarantees of any type.
(3) Improper titles.
(4) Inflated or unjustified expectations of favorable results.
(5) Self-laudatory claims of specialty practice for which credentials do not exist.
(6) Representations that patients easily misunderstand.
(7) Claims of extraordinary skills that are not recognized in the profession.

b. Engaging in unethical conduct includes, but is not limited to, a violation of the standards and principles of chiropractic ethics and code of ethics as set out in rule 40.51(147,272C) as interpreted by the board.

c. Practice harmful or detrimental to the public includes, but is not limited to, the failure of a chiropractic physician to possess and exercise that degree of skill, learning and care expected of a reasonably prudent chiropractic physician acting in the same or similar circumstances in this state or when a chiropractic physician is unable to practice chiropractic with reasonable skill and safety to patients as a result of a mental or physical impairment or chemical abuse.

40.24(4) Habitual intoxication or addiction to the use of drugs.

a. Habitual intoxication or addiction to the use of drugs includes, but is not limited to, the inability of a chiropractic physician to practice chiropractic with reasonable skill and safety by reason of the excessive use of alcohol, drugs, narcotics, chemicals or other type of material on a continuing basis, or the excessive use of alcohol, drugs, narcotics, chemicals or other type of material which may impair a chiropractic physician's ability to practice the profession with reasonable skill and safety.

b. Reserved.

40.24(5) Conviction of a felony related to the profession or occupation of the licensee, or the conviction of any felony that would affect the licensee's ability to practice within a profession. A copy of the record of conviction or plea of guilty shall be conclusive evidence.

a. Conviction of a felony related to the profession or occupation of the licensee or the conviction of any felony that would affect the licensee's ability to practice within a profession includes, but is not limited to, the conviction of a chiropractic physician who has committed a public offense in the practice of the profession which is defined or classified as a felony under state or federal law, or who has violated a statute or law designated as a felony in this state, another state, or the United States, which statute or law relates to the practice of chiropractic, or who has been convicted of a felonious act, which is so contrary to honesty, justice or good morals, and so reprehensible as to violate the public confidence and trust imposed upon the licensee as a chiropractic physician in this state.

b. Reserved.

40.24(6) Fraud in representations as to skill or ability.

a. Fraud in representations as to skill or ability includes, but is not limited to, a chiropractic physician having made misleading, deceptive or untrue representations as to the chiropractic physician's competency to perform professional services for which the chiropractic physician is not qualified to perform by training or experience.

b. Reserved.

40.24(7) Use of untruthful or improbable statements in advertisements.

a. Use of untruthful or improbable statements in advertisements includes, but is not limited to, an action by a chiropractic physician in making information or intention known to the public which is false, deceptive, misleading or promoted through fraud or misrepresentation and includes statements which may consist of, but are not limited to:

(1) Inflated or unjustified expectations of favorable results.

(2) Self-laudatory claims that imply that the chiropractic physician is a skilled chiropractic physician engaged in a field or specialty of practice for which the chiropractic physician is not qualified.

(3) Representations that are likely to cause the average person to misunderstand; or

(4) Extravagant claims or to proclaim extraordinary skills not recognized by the chiropractic profession.

b. Reserved.

40.24(8) Willful or repeated violations of the provisions of this Act.

a. Willful or repeated violations of the provisions of this Act includes, but is not limited to, a chiropractic physician having intentionally or repeatedly violated a lawful rule or regulation promulgated by the board of chiropractic examiners or the state department of health or violated a lawful order of the board or the state department of health in a disciplinary hearing or has violated the chiropractic practice Acts or rules promulgated thereunder.

b. Reserved.

40.24(9) Violating a statute or law of this state, another state, or the United States, without regard to its designation as either felony or misdemeanor, which statute or law relates to the practice of chiropractic.

40.24(10) Revocation, suspension, or other disciplinary action taken by a licensing authority of another state, territory, or country; or failure by the licensee to report in writing to the board of chiropractic examiners revocation, suspension, or other disciplinary action taken by a licensing authority of another state, territory, or country; or both.

40.24(11) Knowingly aiding, assisting, procuring, or advising a person to unlawfully practice chiropractic.

40.24(12) Being guilty of a willful or repeated departure from, or the failure to conform to, the chiropractic practice Acts or rules promulgated therein. An actual injury to a patient need not be established.

2. Not more than 10 percent of the hours from prescribed child abuse, dependent adult abuse, or OSHA training hours.

3. Not more than 14 percent of the hours from elective state, district, or organizational meetings.

4. Not more than 20 percent of the hours from elective chiropractic practice management.

5. Not more than 60 percent of the hours from undergraduate teaching at a CCE- or IBCE-approved institution. (Prescribed)

6. Not more than 60 percent of the hours from postgraduate teaching through a CCE- or IBCE-approved institution or organization, but no more than equal to the hours accrued for the initial session per subject matter. (Prescribed)

7. Not more than 60 percent of the hours from proctoring of the National Board examinations.

645—40.63(151) Standards for approval. A continuing education activity shall be qualified for approval if the board determines that:

40.63(1) It constitutes an organized program of learning (including a workshop or symposium) which contributes directly to the professional competency of the licensee; and

40.63(2) It pertains to common subjects or other subject matters which integrally relate to the current national and international standards of the practice of chiropractic; and

40.63(3) It is conducted by individuals who have a special education, training and experience by reason of which said individuals should be considered experts concerning the subject matter of the program, and is accompanied by a paper, manual or written outline which substantively pertains to the subject matter of the program. Except as may be allowed pursuant to rule 40.71(151) hereof, no licensee shall receive credit exceeding 10 percent of the biennial total required hours for self-study, including TV viewing, video or sound-recorded programs, correspondence work, or research, or by other similar means as authorized by the board.

645—40.64(151) Approval of sponsors, programs, and activities.

40.64(1) Accreditation of sponsors. An approved college or nonprofit organization which desires accreditation as a sponsor of courses, programs, or other continuing education activities, shall apply for accreditation to the board stating its educational history for the preceding two years, including:

a. Dates and subjects offered.

b. Total hours of instruction presented.

c. Names and qualifications of instructors.

d. Monitoring and certification procedures.

Standard for programs and activities shall meet the requirements set forth in rule 40.63(151).

By January 31 of each year, commencing January 31, 1980, all accredited sponsors shall submit a report in writing to the board disclosing the educational programs provided for Iowa licensees during the preceding calendar year including dates, titles and hours of instruction provided each licensee in a form approved by the board.

The board may at any time reevaluate an accredited sponsor. If after such reevaluation, the board finds there is basis for consideration of revocation of the accreditation of an accredited sponsor, the board shall give notice by ordinary mail to that sponsor of a hearing on such possible revocation at least 30 days prior to said hearing. The decision of the board after such hearing shall be final.

40.64(2) Accreditation for sponsors shall be terminated four years from the date of approval. By January 31, one year previous to the date of termination, each sponsor shall be required to reapply for approval. The application shall include those items listed under rule 40.64(1).

40.64(3) Rescinded, effective August 12, 1981.

40.64(4) Review of programs. The board may monitor or review any continuing education program already approved by the board and upon evidence of significant variation in the program presented from the program approved may disapprove all or any part of the approved hours granted in the program.

40.64(5) When it is necessary to monitor a sponsor of continuing education, the sponsor shall reimburse the board member for necessary traveling and other expenses in accordance with the guidelines of the state of Iowa for board members and per diem at the rate of $50 per day for each day actually spent in travel and monitoring of the program.

This rule is intended to implement Iowa Code section 272C.2.

645—40.65(272C) Hearings. In the event of denial, in whole or part, of any application for approval of a continuing education program or credit for continuing education activity, the applicant or licensee shall have the right within 20 days after the sending of the notification of the denial by ordinary mail, to request a hearing which shall be held within 60 days after receipt of the request for hearing. The hearing shall be conducted by the board or a qualified administrative law judge designated by the board, in substantial compliance with the hearing procedure set forth in rule 40.47(147,151,17A,272C). If the hearing is conducted by an administrative law judge, the administrative law judge shall submit a transcript of the hearing including exhibits to the board after the hearing with the proposed decision of the administrative law judge. The decision of the board or decision of the administrative law judge after adoption by the board shall be final.

645—40.66(272C) Reports and records. Each licensee shall file evidence of continuing chiropractic education satisfactory to the board previous to the date of relicensure in which claimed continuing education hours were completed. A report of continuing chiropractic education on a form furnished by the board shall be sent to the Board Administrator, Iowa Board of Chiropractic Examiners, Lucas State Office Building, Des Moines, Iowa 50319-0075, or to any other address as may be designated on the form.

40.66(1) The board relies upon each individual licensee's integrity in certifying to compliance with the continuing chiropractic education requirements herein provided. Nevertheless, the board reserves the right to require, if it so elects, any licensee to submit, in addition to such report, further evidence satisfactory to the board demonstrating compliance with the continuing chiropractic education requirements herein provided. Accordingly, it is the responsibility of each licensee to retain or otherwise be able to have, or cause to be made, available at all times, reasonably satisfactory evidence of such compliance.

40.66(2) The licensee shall maintain a file in which records of the activities are kept, including dates, subjects, duration of programs, registration receipts where appropriate and other appropriate documentations for a period of three years after the date of the program.

645—40.67(272C) Attendance record. The board shall monitor licensee attendance at approved programs by random inquiries of accredited sponsors.

645—40.68(272C) Attendance report. Rescinded IAB 2/12/97, effective 3/19/97.

645—40.69(272C) Exemptions for inactive practitioners. A licensee who is not engaged in practice in the state of Iowa residing within or without the state of Iowa may be granted a waiver of compliance and obtain a certificate of exemption upon written application to the board. The application shall contain a statement that the applicant will not engage in the practice of chiropractic in Iowa without first complying with all regulations governing reinstatement after exemption. The application for a certificate of exemption shall be submitted upon the form provided by the board.

645—40.70(272C) Reinstatement of inactive practitioners. Inactive practitioners who have been granted a waiver of compliance with these regulations and obtained a certificate of exemption shall, prior to engaging in the practice of chiropractic in the state of Iowa, satisfy the following requirements for reinstatement:

40.70(1) Submit written application for reinstatement to the board upon forms provided by the board, pay the current renewal fee; and

40.70(2) Furnish in the application evidence of one of the following:

a. The practice of chiropractic in another state of the United States or the District of Columbia and completion of continuing education for each year of inactive status substantially equivalent in the opinion of the board to that required under these rules; or

b. Completion of a total number of accredited continuing education hours substantially equivalent under these rules computed by multiplying 30 by the number of years a certificate of exemption shall have been in effect for the applicant. Hours need not exceed 90 hours for reinstatement, if obtained within the past two years, except when there is a demonstrated deficiency for specialized education as determined by the board through a personal interview with the applicant; or

c. Successful completion of the Iowa state license examination, or a special purposes examination approved by the board, conducted within one year immediately prior to the submission of such application for reinstatement.

645—40.71(272C) Exemptions for active practitioners. A chiropractic physician licensed to practice chiropractic shall be deemed to have complied with the continuing education requirements of this state during the period that the licensee serves honorably on active duty in the military services, or for periods that the licensee is a resident of another state or district having a continuing education requirement for the profession and meets all requirements of that state or district for practice therein, or for periods that the licensee is a government employee working as a licensed chiropractic physician and assigned to duty outside of the United States, or for other periods of active practice and absence from the state approved by the board. Prior to engaging in active practice in Iowa, the licensee shall submit for board approval evidence of continuing education obtained in another state or district.

645—40.72(272C) Physical disability, illness or exemption of continuing education. The board may, in individual cases involving physical disability, illness or for other just cause determined by the board, grant waivers of the minimum education requirements or extensions of time within which to fulfill the same or make the required reports. No waiver or extension of time shall be granted unless written application therefor shall be made on forms provided by the board and signed by the licensee and a physician licensed in the state of Iowa. Waivers of the minimum educational requirements may be granted by the board for any period of time not to exceed one calendar year. In the event that the physical disability, or illness or other just cause determined by the board upon which a waiver has been granted continues beyond the period of the waiver, the licensee must reapply for an extension of the waiver. The board may, as a condition of any waiver granted, require the applicant to make up a certain portion or all of the minimum educational requirements waived by such methods as may be prescribed by the board.

645—40.73(272C) Reinstatement of lapsed license. Application for reinstatement of a lapsed license may not preclude disciplinary actions by the board as provided in this chapter.

40.73(1) A licensee who allows a license to lapse by failing to renew such license within 60 days of renewal date may be reinstated as follows:

a. Submit a completed application for reinstatement of a license to practice chiropractic.

b. Pay the renewal fee(s) as required by subrules 40.12(2) and 40.12(3).

c. Have a personal interview with the board at the board's request.

d. Provide evidence of completion of 30 hours of continuing education for each lapsed year. Hours need not exceed 90 hours if obtained within the past two years, except when there is a demonstrated deficiency for specialized education as determined by the board through a personal interview.

(1) The board may grant an extension of time of up to one year to allow compliance with continuing education requirements for reinstatement.

(2) An exemption from the required reporting of continuing education for the purpose of reinstatement of an active practitioner may be granted by the board in accordance with rule 40.72(272C).

40.73(2) The board may require a licensee applying for reinstatement to successfully complete the state examination or a special purposes examination when, through a personal interview, the boar finds reason to doubt the licensee's ability to practice with reasonable skill and safety.

These rules are intended to implement Iowa Code sections 147.32, 147.76 and 272C.2.

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TITLE XIX
ACCOUNTING

CHAPTER 201
AUDITING CLAIMS
[Prior to 12/17/86, see Comptroller, State[270] Ch 1]

All vouchers and claims required by law to be audited by the department of revenue and finance should conform to the following rules.

701—201.1(421) General provisions.

201.1(1) *Submission of claims and approval.* All claims shall be typewritten, or written in ink, and be itemized and certified by the claimant.

EXCEPTION: The claimant's certification is not needed when the original invoice is attached to the claim. The original invoice shall indicate in detail the items of service, expense, thing furnished, or contract upon which payment is sought.

Approval of the claim shall be certified thereon by the head of the department, or the deputy, or the chair of the board, or commission or its executive officer, or by a person delegated by the department head to fulfill this responsibility. A list of authorized signatures shall be provided to the department of revenue and finance. If a rubber stamp signature is used, the claim shall be signed or initialed by the employee authorized to use the rubber stamp.

All travel claims submitted shall be the actual expense incurred (not exceeding maximum limitations) by the claimant, and shall not include expenses paid for other individuals, or for the purchase of miscellaneous items which are not needed in the performance of official duties while traveling. All travel vouchers shall contain the social security number of the employee or other individual identification (with prior written approval by the department of revenue and finance).

All claims shall show in the space provided the Iowa Code reference for the appropriation or fund from which the claim is payable.

When an original invoice is submitted by a vendor, rather than the claimant signing the voucher, the vendor shall provide the state agency with an original invoice that the vendor would use in the normal conduct of their business. A state department shall not impose additional or different requirements on submission of invoices than those contained in these rules unless the department of revenue and finance exempts the department from these invoice requirements upon a finding that compliance would result in poor accounting or management practices.

201.1(2) *Interest on claims.* Any claim received for services, supplies, materials or a contract which is payable from the state treasury that remains unpaid after 60 days following the receipt of the claim or the satisfactory delivery, furnishing or performance of the services, supplies, materials or contract whichever date is later, the state shall pay interest at the rate of 1 percent per month on the unpaid amount of the claim. After July 1, 1998, departments may enter into written contracts for goods and services on payment terms of less than 60 days if the state may obtain a financial benefit or incentive which would not otherwise be available from the vendor. All departments entering into written contracts for goods and services on payment terms of less than 60 days shall maintain written documentation demonstrating that the department obtained a financial benefit or incentive which would not otherwise have been available from the vendor. This paragraph does not apply to claims against the state under Iowa Code chapters 25 and 669 or the claims paid by federal funds. The interest shall be charged to the appropriation or fund to which the claim is certified.

201.1(3) *Availability of rules.* All state agencies are required to mail the number of copies of the proposed rule as requested to the state office of a trade or occupational association which has registered its name and address with the agency. The trade or occupational association shall reimburse the agency for the actual cost incurred in providing the copies of the proposed rule.

201.1(4) *Property claims and real estate claims.* Claims for personal property sold, the acquisition of real estate, or services rendered to the state must have the original invoices or other documentation attached whenever possible to do so.

201.1(5) *Form for travel claim.* All travel claims are to be on a travel voucher or on a form approved (in writing) by the department of revenue and finance.

201.1(6) *Intradepartmental rules on claims.* All intradepartmental rules pertaining to the auditing of claims internally shall be subject to the review and approval (in writing) of the department of revenue and finance.

This rule is intended to implement Iowa Code sections 17A.4 and 421.40.

701—201.2(421) Official travel.

201.2(1) *Personal funds to be supplied.* All employees shall provide themselves with sufficient funds for all current expenses. See subrules 201.2(3) and 201.2(4) regarding travel advances.

201.2(2) *Reimbursable expenses and travel allowances.* The reimbursement allowed shall be limited to an allowance for subsistence and transportation, and other actual and necessary travel expenses incurred by a traveler in the performance of official duties subject to applicable limitations. All travel reimbursements shall be made on the basis of the usually traveled route.

201.2(3) *Travel advance.* State employees who are required to travel out of state may apply for a travel advance if the anticipated out-of-pocket expenses are in excess of $200. An advance may not exceed 80 percent of the anticipated expenses. In addition, employees shall comply with the conditions set forth below:

a. The travel advance shall be deducted from the expense voucher submitted by the employee upon completion of the trip.

b. If for any reason an employee does not make the anticipated trip, the travel advance shall be immediately returned to the state.

c. The employee shall give the department of revenue and finance authority to recover funds owed the state (through payroll deduction) which have not been repaid within 30 days of completion of the trip.

d. The department of revenue and finance reserves the right to refuse advances when funds are currently owed the state or when there have been prior abuses.

201.2(4) *Permanent in-state travel advance.* State employees who are not covered by collective bargaining agreements negotiated under the provisions of Iowa Code chapter 20 may be eligible for a permanent in-state travel advance if they meet and agree to the following conditions:

a. Employees whose in-state travel expense reimbursements average between $100 and $150 per month for the preceding 12 months shall receive upon written request a permanent travel allowance of $100.

b. Employees whose in-state travel expense reimbursements average over $150 per month for the preceding 12 months shall receive upon written request a permanent travel allowance of $150.

c. The department of revenue and finance shall have authority to deduct the permanent travel advance from the employee's last paychecks upon separation from state service.

d. The department of revenue and finance and employing agency reserve the right to review the employee's monthly travel expenses and should the employee fail to meet the above requirements, or become ineligible due to a change in duties or job assignment, the advance will be withdrawn (through payroll deduction) following proper notification.

201.5(12) *Rental or charter of special conveyances.* The rental or charter of aircraft, automobiles, boats, buses, or other special conveyances shall be held to a minimum but may be authorized in those cases when no public or ordinary means of transportation is available, or when such public or ordinary means of transportation cannot be used advantageously in the best interest of the state. Specific justification shall accompany the voucher in each instance where the use of special conveyance is authorized and shall include information such as the location where special conveyance commenced, and the points visited. The department of revenue and finance may require a comparison of costs between public or ordinary means of transportation compared to the cost of special conveyance.

701—201.6(421) Subsistence allowance.

201.6(1) *The phrase "subsistence allowance."* The phrase "subsistence allowance" used herein shall be construed to include all charges (including applicable taxes) for meals and lodging (single rate only). Charges for radios, television, and similar appliances are not reimbursable.

201.6(2) *Subsistence allowances for in-state travel—monetary and time limitations.* Officers and employees shall be allowed overnight lodging and meal expense when required to travel outside of the city of their official domicile. The amounts shall not exceed the limits established in the department of revenue and finance procedure manual.

a. Rescinded, effective February 19, 1986.

b. Rescinded, effective February 19, 1986.

201.6(3) *Subsistence allowances for out-of-state travel—monetary and time limitations.*

a. Lodging and meal expenses are not limited outside the state but the incurred expenditures are to be reasonable. Receipts for lodging are to accompany the claim and show the dates, room number, occupants, and amount per night. Lodging will be limited to the night preceding and the night of the ending date of the convention or meeting. Elected officials are not required to furnish receipts.

b. Meals will be limited to lunch and dinner the day preceding and breakfast and lunch the day after the meeting.

701—201.7(421) Miscellaneous expense.

201.7(1) *Definition.* Miscellaneous expenses are those deemed necessary in the conduct of official business of the state which are not included in the categories of subsistence, mileage, and state-owned vehicle operation. All miscellaneous expenses shall be claimed under the column heading "miscellaneous expense" on the travel claim and be supported by sufficient documentation.

201.7(2) *Receipts.* A receipt for, or explanation of, each and every transaction involving miscellaneous expenditures shall be provided.

201.7(3) *Baggage.* Charges for baggage in excess of the weight or of the size carried free by transportation companies shall be allowed if the baggage is used for official business. Charges for the storage of baggage may also be allowed if it is shown that such storage was on account of official business. Specific justification must be submitted with the claim voucher.

201.7(4) *Telephone and telegraph messages.* Expenses for official telephone and telegraph messages which must be paid for by the traveler shall be allowed. Toll and local calls and telegrams should be supported and attached to the travel claim showing date, city or town called or telegraphed, name of person or firm called or to where telegram was sent and amount of each call or telegram.

201.7(5) *Stenographic or typewriting services.* Charges for official stenographic or typewriting services shall be allowed on official travel.

201.7(6) *Purchase of supplies.* The purchase of stationery and all other similar supplies shall be allowed in emergencies warranting their use for handling of official business while on official travel, and shall be submitted and certified on a travel voucher (or other approved form) with the proper receipts attached.

201.7(7) *Parking.* Parking will be allowed for state and private cars at an airport during the employee's flight.

201.7(8) *Registration fees.* The payment of registration fees which are required for participation in meetings shall be allowed. Registration fees shall be supported by the official receipt of the conference or convention subject to the following limitations:

a. Expenditures for payment of registration fees for the purpose of obtaining the privileges of membership or other personal benefits from an organization are not reimbursable. Memberships in organizations must be in the name of the state agency and have executive council approval.

b. Registration fees paid by the traveler will be claimed for reimbursement as a miscellaneous nonsubsistence expense and a receipt must be attached to the claim.

c. Reimbursement of registration fees, at the official domicile, may require prior written approval of the department of revenue and finance.

701—201.8(421) State-owned vehicle. Any expense other than parking should not be claimed on the expense voucher but should be reimbursed through procedures established by the vehicle dispatcher's office.

Rules 201.2(421) to 201.8(421) are intended to implement Iowa Code sections 421.32 to 421.45.

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CHAPTER 202
Reserved

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HUNTING (cont'd)