CHAPTER 42
OPERATING PROCEDURES AND STANDARDS FOR USE OF RADIATION EMITTING EQUIPMENT

[Prior to 12/2/87, Health Department[470] Ch 42]

641—42.1(136C) Minimum training standards for diagnostic radiographers.

42.1(1) *Definitions.* For the purpose of this chapter, the definitions of 641—Chapters 38 to 41 and 43 to 46 may also apply.

"Approved course of study" means a curriculum and associated training and testing materials which the department has determined is adequate to train students to meet the requirements of 42.1(136C).

"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.

"Contrast media" means material intentionally administered to the human body to define a part(s) which is not normally visualized radiographically.

"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.

"Licensed practitioner" means a person licensed or otherwise authorized by law to practice medicine, osteopathy, chiropractic, podiatry, dentistry or dental hygiene, or certification as a physician assistant as defined in Iowa Code section 148C. 1, subsection 6.

"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.

"Sinus" as used in the limited radiographer curriculum refers to the paranasal sinuses only.

"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 a person 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.

42.1(2) *Types of operators.*

a. *"General diagnostic radiographer"* means a person, other than a licensed practitioner or dental radiographer, who applies X-radiation to any part of the human body for diagnostic purposes while under the supervision of a licensed practitioner.

b. *"Limited diagnostic radiographer"* means a person, other than a licensed practitioner or dental radiographer, who applies X-radiation to not more than two body parts while under the supervision of a licensed practitioner. Chest and extremity radiographic examinations are considered as one body part.

(1) Rescinded IAB 5/27/92, effective 7/1/92.

(2) Rescinded IAB 5/27/92, effective 7/1/92.

c. Rescinded IAB 6/7/95, effective 7/12/95.

42.1(3) *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.

42.1(4) *Training requirements.*

a. General diagnostic radiographer. Successful completion of a Joint Review Committee on Education in Radiologic Technology approved course of study or equivalent to prepare the student to demonstrate competency in the following areas:

(1) Radiation protection of patients and workers, including monitoring, shielding, units of measurement and permissible levels, biological effects of radiation, and technical consideration in reducing radiation exposure and frequency of retakes;

(2) Technique and quality control to achieve diagnostic objectives with minimum patient exposure, including X-ray examinations, X-ray production, films, screens, holders and grids, technique conversions, film processing, artifacts, image quality, film systems and control of secondary radiation for the specified category;

(3) Patient care, including but not limited to, aseptic techniques, emergency procedures and first aid, and contrast media;

(4) Positioning, including normal and abnormal anatomy and projections;

(5) Radiographic equipment and operator maintenance to include X-ray tubes, grids, standardization of equipment, generators, preventive maintenance, basic electricity, film processors and maintenance, collimators, X-ray control consoles, tilt tables, ancillary equipment, fluoroscopes and electrical and mechanical safety;

(6) Special techniques, including stereo, body section radiography, pelvimetry, image intensification, photo timing and mobile units; and

(7) Clinical experience sufficient to demonstrate competency in the application of the above as specified in the revised 1990 edition of the "Essentials and Guidelines of an Accredited Educational Program for the Radiographer" of the American Medical Association's Committee on Allied Health Education and Accreditation.

b. Limited diagnostic radiographer.

(1) Completion of an approved course of study to prepare the student to demonstrate competency in the following areas:

1. Radiation protection of patients and workers including monitoring, shielding, units of measurement and permissible levels, biological effects of radiation, and technical considerations in reducing radiation exposure and frequency of retakes;

2. Technique and quality control to achieve diagnostic objectives with minimum patient exposure to include X-ray examination, X-ray production, films, screens, holders and grids, technique conversions, film processing, artifacts, image quality, film systems and control of secondary radiation for the specified category;

3. Patient care including, but not limited to, aseptic techniques, emergency procedures and first aid;

4. Positioning, including normal and abnormal anatomy and projections for the specific category;

5. Radiographic equipment and operator maintenance to include X-ray tubes, grids, standardization of equipment, generators, preventive maintenance, basic electricity, film processors and maintenance, collimators, X-ray control consoles, tilt tables, ancillary equipment, and electrical and mechanical safety;

6. Special techniques limited to those required by the specific category; and

7. Clinical experience sufficient to demonstrate competency in the application of the above as specified by the department. Clinical experience must be directly supervised by a two-year trained

general radiographer or licensed physician who physically observes and critiques the actual X-ray procedures.

8. Permission for a representative of the Iowa department of public health to comprehensively evaluate whether the individual meets the training standard.

(2) Rescinded IAB 5/27/92, effective 7/1/92.

(3) An individual employed in a diagnostic radiography facility which has a workload of less than 5000 examinations per year and which provides 24-hour service in a hospital will be permitted to apply X-radiation to any part of the human body at that facility if the individual completes a training program recognized by the department, as outlined in 42.1(4)*"b"*(1) and submits a letter from a board-certified or board-eligible radiologist who verifies in writing the specific procedures the individual is competent to perform. The training program must cover the areas outlined in 42.1(4)*"b,"* the anatomy and physiology of the entire body, positioning and techniques relative to the procedures to be performed, and appropriate clinical training which includes all parts of the human body. Training received under this subrule is specific to the facility and must be reevaluated by the department before an individual may transfer to another facility.

c. Certification by the American Registry of Radiologic Technologists or the American Registry of Clinical Radiography Technologists meets the minimum requirements of 42.1(136C).

42.1(5) *School accreditation.*

a. Graduates of schools accredited by the Joint Review Committee on Education in Radiologic Technology who have successfully completed an appropriate course of study in diagnostic radiography will be considered to meet the requirements of 42.1(2)*"a."*

b. Graduates of programs recognized by the Iowa department of public health in consultation with the professional societies and boards of examiners for appropriate course of study in diagnostic radiography will be considered to meet the requirements of 42.1(2)*"a"* or *"b."*

42.1(6) *Exemptions.*

a. Students enrolled in and participating in an approved program or approved course of study for diagnostic radiography or an approved school of medicine, osteopathy, podiatry, and chiropractic, who as a part of their course of study, apply ionizing radiation to a human being while under the supervision of a licensed practitioner. The projected completion date of the clinical portion of the program or course of study shall be within a time period equal to or less than twice that required for the original program or course of study.

b. Licensed practitioners as defined in 42.1(1).

c. Rescinded IAB 6/7/95, effective 7/12/95.

42.1(7) *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 without meeting the requirements of this rule.

b. Allowing any person, excluding a licensed physician, to operate as a diagnostic radiographer if that person cannot provide proof of certification by the department.

c. Failing to report to the department any person who 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.

e. Any action that the department determines may jeopardize the public or therapist's health and safety.

42.1(8) Rescinded IAB 5/27/92, effective 7/1/92.

42.1(9) *Technical advisory committee.*

a. The department shall establish a technical advisory committee made up of two radiologic technologists, two physicians, including one radiologist and one private practice practitioner, and a representative of the department.

b. The advisory committee shall assist the department in developing and establishing criteria for continuing education and examinations.

42.1(10) *Examinations.*

a. All individuals, except licensed practitioners, seeking to perform diagnostic radiography must, in addition to subrule 42.1(4), take and satisfactorily pass a written examination within one year of the date of the initial certification. Examination must include the following subject matter for each category of radiographer:

(1) General radiographer and limited radiographer under provisions of 42.1(4)*"b"*(3)—radiation protection, radiation physics, radiographic and fluoroscopic techniques, special procedures, patient care, positioning, equipment maintenance, anatomy, contrast media, physiology, quality control, radiographic processing and clinical experience.

(2) Limited radiographer under the provisions of 42.1(4)*"b"*(1)—radiation protection, radiation physics, radiographic techniques, patient care, positioning, equipment maintenance, anatomy, physiology, quality control, and radiographic processing and clinical experience for the specific permit to practice requested.

(3) Contents of the examinations will be established and periodically revised by the department in consultation with the technical advisory committee.

b. Examinations will be given by the department at least annually, or as necessary, at course of study location or other location determined by the department.

c. The department may accept, in lieu of its own examination, evidence of satisfactory performance in an examination given by an appropriate organization or testing service provided that the department finds the organization or service to be competent to examine applicants in the discipline of radiography. For purposes of this subrule, persons who are registered with the American Registry of Radiologic Technologists or American Registry of Clinical Radiography Technologists meet the testing requirements of 42.1(10).

42.1(11) *Continuing education.*

a. Each individual, other than a licensed practitioner, who operates diagnostic X-ray equipment 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 diagnostic radiographer under the provisions of 42.1(4)*"b"*(3)—24 clock hours, 1.0 hour must be in radiation protection.

(3) Limited diagnostic radiographer under the provisions of 42.1(4)*"b"*(1)—12 clock hours, 1.0 hour must be in radiation protection.

b. Continuing education course approval.

(1) Thirty days prior to conducting a continuing education course, the sponsoring person 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) Rescinded IAB 5/27/92, effective 7/1/92.

c. Continuing education credit will be awarded under provisions of 42.1(11)*"b"* 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 continuing education course to diagnostic radiographers which has been approved by the department. Credit granted shall be at a rate of two times the amount of time it takes to present the course.

(3) Only once during a two-year period for the same continuing education course.

d. All continuing education must be directly related to diagnostic radiography.

e. It is required that proof of receiving continuing education be retained at each individual's place of employment for review by representatives of this 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. Failure to complete the continuing education requirements prior to the due date may result in penalties or termination of certification as specified in 641—paragraph 38.8(7)*"c."*

42.1(12) *Recertification.*

a. If a person who performs as a diagnostic radiographer in Iowa allows the certification to expire for any reason or if any person 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 as outlined in 641—42.1(136C). Proof of possession of a previous certification may satisfy the training portion of this requirement.

(3) Any individual who has not renewed certification for at least five years and wants to regain certification, or who has not applied for certification within five years of the completion date of the radiography course, will need to complete a recertification program approved by the department of not less than 24 contact hours for general technologists and 12 contact hours for limited technologists which specifically applies to diagnostic radiography.

b. Recertification programs.

(1) The recertification program must review those basic principles necessary to ensure minimum competency in radiology and must also include the satisfactory completion of a written examination. Both the program and the examination must acquire prior approval from the department. Courses designed for use in the recertification program will not qualify for continuing education credit for those persons required to attend in order to recertify.

(2) If no approved programs are available, the department may require attendance for a minimum of 24 contact hours for general technologists and 12 hours for limited technologists at specific continuing education programs. The continuing education must be confined to subjects which apply to the area of certification limitation, if any, and would have to be completed within a specified time period.

c. Exemptions. Any or all of the above-mentioned requirements may be waived for a person who has been actively employed as a radiologic technologist in another state, country, or federal institution or who can prove circumstances above and beyond the norm. These cases will be reviewed on an individual basis and the decision of the department shall be final.

42.1(13) *Fees.* All diagnostic radiographers certified under this rule must pay fees as specified in 641—subrule 38.8(6)

641—42.2(136C) Minimum standards for nuclear medicine technologists.

42.2(1) *Definitions.*

"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.

"NRC" means Nuclear Regulatory Commission.

"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 a person, 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.

"Radionuclide" means a radioactive element or a radioactive isotope.

"Radiopharmaceutical" means a substance defined by the Food and Drug Administration as a radioactive drug.

42.2(2) *Minimum eligibility requirements.*

a. Graduation from high school or its equivalent.

b. At least 18 years of age.

c. Ability to adequately perform necessary duties without constituting a hazard to the health or safety of patients, self, other health care workers, or the general public.

42.2(3) *Specific eligibility requirements.*

a. Any person who is registered in nuclear medicine technology with the following organizations may meet the education and testing requirements of this rule.

(1) American Registry of Radiologic Technologists.

(2) Nuclear Medicine Technology Certification Board.

(3) American Society of Clinical Pathologists.

b. Any person, other than a licensed physician, who has completed all educational requirements of this rule but has not yet successfully completed the required examination will be issued temporary certification valid for one year from completion of a training program approved by the department.

c. Rescinded IAB 6/7/95, effective 7/12/95.

42.2(4) *Training requirements.*

a. General nuclear medicine technologist. Successful completion of a Committee on Allied Health Education and Accreditation (CAHEA) approved course of study or equivalent designed to prepare the student to demonstrate competency in the following:

(1) Basic anatomy, physiology, and pathology.

(2) Intravenous injections and radiopharmaceutical chemistry.

(3) Radiation physics and mathematics.

(4) Nuclear instrumentation.

(5) Radiation biology.

(6) Radiation protection and radiation protection standards and codes.

(7) Laboratory procedures and techniques (in vivo and in vitro).

(8) Clinical application of radiopharmaceuticals used for diagnostic and therapeutic uses and duties performed by the technologist during sealed source procedures.

(9) Records and administrative procedures.

(10) Medical ethics.

(11) Patient care.

b. Limited nuclear medicine technologist. Successful completion of a department-approved training program that prepares the student to demonstrate competency in a specified area. Each program shall include the items in 42.2(4)*"a"* that are specific to the limited area. Included are laboratory technologists who perform nuclear medicine procedures unless the material handled is regulated under 641—39.4(22)*"i."*

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 nuclear medicine technology may be considered to meet the requirements of this subrule.

d. Any person submitting a training program to the department for approval must provide the following:

(1) An outline of the didactic and clinical studies to meet the requirements of this subrule.

(2) Proof that the instructor meets the requirements of this rule as a nuclear medicine technologist or is a licensed physician who is authorized to possess and use radioactive materials.

(3) A time schedule of the training program.

(4) A description of the mechanism to be used to determine competency.

e. Upon the completion of the training in 42.2(4)*"d,"* the following must be submitted:

(1) A statement of competency from a licensed physician who is an authorized user on an Iowa or NRC radioactive materials license.

(2) A statement of permission to allow a representative of the department to comprehensively evaluate whether the individual meets the training standard.

42.2(5) *Examinations.*

a. Any person, other than a licensed physician, seeking certification as a general nuclear medicine technologist shall, in addition to the requirements of 42.2(4)*"a,"* successfully complete a written examination including the subject matter specified in 42.2(4)*"a."* The following organizations offer approved general examinations:

(1) American Registry of Radiologic Technologists.

(2) Nuclear Medicine Technology Certification Board.

b. Any person certified under these rules shall be exempt from the examination requirements as long as the original certification remains in effect.

c. Any person, other than a licensed physician, seeking certification as a limited nuclear medicine technologist shall, in addition to the requirements of 42.2(4)*"b,"* successfully complete a written examination approved by the department which includes the subject matter specified in 42.2(4)*"b."*

d. Any person holding temporary certification must successfully complete an approved examination within one year of the issuance date of the certification.

42.2(6) *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.

42.2(7) *Continuing education.*

a. Every two years a certificate holder shall complete continuing education hours and present proof of completion to the department at the time of renewal. Hours are to be distributed as follows:

(1) General nuclear medicine technologists: 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.

(2) Limited nuclear medicine technologists: 12 hours total.

b. Continuing education course approval.

(1) Thirty days prior to conducting a continuing education course, the sponsoring person shall submit the following to the department:

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) Any program submitted within 30 days of presentation will not be guaranteed a complete review before the presentation date.

(3) Following its review, the department may approve, disapprove, or request additional information on the proposed course.

(4) The department may, from time to time, audit the continuing education course to verify the adequacy of program content and delivery.

c. Continuing education credit will be awarded under provisions of 42.2(7) by the department to individuals who:

(1) Successfully complete a continuing education course which has been approved by the department.

(2) Attend an approved course only once during a two-year period, except for those required in 42.2(7)*"a"*(1) and (2).

(3) Present a continuing education course to nuclear medicine technologists which has been approved by the department. Credit granted shall be two times the amount of time it takes to present the course.

d. All continuing education must be directly related to the subject area stated in 42.2(4)*"a."*

e. Proof of receiving continuing education is to be retained at each individual's place of employment for review by representatives of the department. Proof of continuing education hours must be maintained for at least three years.

f. All continuing education requirements shall be completed during the two-year period prior to the certificate continuing education due date. Failure to complete the continuing education requirements prior to the due date may result in termination of certification as specified in 641—paragraph 38.8(7)*"c."*

42.2(8) *Recertification.*

a. If a person who holds certification as a nuclear medicine technologist in Iowa allows the certification to expire for any reason or if any person voluntarily terminates certification, the following will apply:

(1) Any individual who wishes to regain a valid 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 as outlined in this rule. Proof of possession of a previous certification may satisfy the training portion of this requirement.

(3) Any individual who has not renewed certification for at least five years and wants to regain certification or who has not applied for certification within five years of the completion date of the nuclear medicine training shall complete a recertification program approved by the department of not less than 12 contact hours which specifically applies to nuclear medicine.

b. The recertification program.

(1) Must review those basic principles necessary to ensure minimum competency in nuclear medicine technology.

(2) Must include the satisfactory completion of a written examination.

(3) Both the program and the examination must acquire prior approval from this department.

(4) Courses designed for use in the recertification program will not qualify for continuing education credit for those persons required to attend in order to recertify.

(5) If no approved programs are available, this department may require attendance for a minimum of 12 contact hours at continuing education programs specific to nuclear medicine.

(6) Exemptions. Any or all of the above-mentioned requirements may be waived for an individual who has been actively employed as a nuclear medicine technologist in another state, country, or federal institution or who can prove circumstances above and beyond the norm. These cases will be reviewed on an individual basis and the decision of the department shall be final.

42.2(9) *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 nuclear medicine technologist without meeting the requirements of this rule.

b. Allowing any person to operate as a nuclear medicine technologist, excluding a licensed physician who is an authorized user, if that person cannot prove certification by the department.

c. Failing to report to the department any person who the certificate holder knows is in violation of this rule.

d. Submitting false information in order to obtain a certificate or renewal certificate as a nuclear medicine technologist.

e. Any action that the department determines may jeopardize the public or technologist's health and safety.

42.2(10) *Fees.* All nuclear medicine technologists certified under this chapter shall pay fees as specified in 641—subrule 38.8(6).

This rule is intended to implement Iowa Code chapter 136C.

641—42.3(136C) Minimum standards for radiation therapists.

42.3(1) *Definitions.*

"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.

"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 a person, other than a physician, who applies X-radiation to human beings for the purpose of localizing treatment fields and isotopes and for treatment planning.

42.3(2) *Minimum eligibility requirements.*

a. Graduation from high school or its equivalent.

b. At least 18 years of age.

c. Ability to adequately perform necessary duties without constituting a hazard to the health or safety of patients, self, other health care workers and the general public.

42.3(3) *Specific eligibility requirements.* Each person shall meet one of the following:

a. Any person 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 person, 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.

c. Rescinded IAB 6/7/95, effective 7/12/95.

42.3(4) *Training requirements.*

a. General radiation therapist. Successful completion of a Committee on Allied Health Education and Accreditation (CAHEA)-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 42.3(4)*"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.

d. Any person submitting a training program to the department for approval must include the following:

(1) An outline of the didactic and clinical studies to meet the requirements of 42.3(4)*"a."*

(2) Proof that the instructor meets the requirements of this rule as a radiation therapist or is a radiation oncologist.

(3) An approximate time schedule of the training program.

(4) A description of the mechanism to be used to determine competency.

e. Upon completion of the training in 42.3(4)*"d,"* the following must be submitted:

(1) A statement of competency from a radiation oncologist.

(2) A statement of permission to allow a representative of the department to comprehensively evaluate whether the individual meets the training standard.

42.3(5) *Examinations.*

a. Any person, other than licensed physicians, seeking certification as a radiation therapist shall, in addition to the requirements of 42.3(4), 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 person certified under these rules is exempt from examination requirements as long as the initial certification remains in effect.

c. Any person seeking to perform simulation radiography only must successfully complete an approved examination in either diagnostic radiography or radiation therapy.

d. Any person holding a temporary certification must successfully complete an approved examination within one year of the date of completion of the training.

42.3(6) *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.

42.3(7) *Continuing education.*

a. Every two years a certificate holder shall complete continuing education hours for submission at the time of renewal:

(1) Radiation therapist: proof of 24.0 clock hours of continuing education courses in subjects directly related to radiation therapy.

(2) 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 person must submit the following to the department:

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) Any program submitted within 30 days of presentation will not be guaranteed a complete review before the presentation date.

(3) Following its review, the agency may approve, disapprove, or request additional information on the proposed course.

(4) The department may, from time to time, audit the continuing education course to verify the adequacy of program content and delivery.

c. Continuing education credit will be awarded under provisions of 42.3(7) by the department to individuals who:

(1) Successfully complete a continuing education course which has been approved by the department.

(2) Present an approved continuing education course to radiation therapists. Credit granted shall be at a rate of two times the amount of time it takes to present the course.

(3) Attend an approved course only once during each two-year period.

d. All continuing education must be directly related to the subject area stated in 42.3(4)*"a."*

e. Proof of receiving continuing education is to be retained at each individual's place of employment for review by representatives of the department. Proof of continuing education hours must be maintained for at least three years.

f. All continuing education requirements shall be completed during the two-year period prior to the certificate continuing education due date. Failure to complete the continuing education requirements prior to the due date may result in termination of certification as specified in 641—paragraph 38.8(7)*"c."*

42.3(8) *Recertification.*

a. If a person who holds certification as a radiation therapist in Iowa allows the certification to expire for any reason or if any person voluntarily terminates certification, the following will apply:

(1) Any individual who wishes to regain a valid 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 as outlined in this rule. Proof of possession of a previous certification may satisfy the training portion of this requirement.

(3) Any individual who has not renewed the certification for at least five years and wants to regain certification or who has not applied for certification within five years of the completion date of the radiation therapy training shall complete a recertification program approved by the department of not less than 12 contact hours which specifically apply to radiation therapy.

b. Recertification programs.

(1) The recertification program must review the basic principles necessary to ensure minimum competency in radiation therapy and must also include the satisfactory completion of a written examination. Both the program and the examination shall acquire prior approval from the department. Courses designed for use in the recertification program will not qualify for continuing education credit for those persons required to attend in order to recertify.

(2) If no approved programs are available, the department may require attendance for a minimum of 12 contact hours at continuing education programs specific to radiation therapy.

(3) Exemptions. Any or all of the above-mentioned requirements may be waived for an individual who has been actively employed as a radiation therapist in another state, country, or federal institution or who can prove circumstances above and beyond the norm. These cases will be reviewed on an individual basis and the decision of the department shall be final.

42.3(9) *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 radiation therapist without meeting the requirements of this rule.

b. Allowing any person, excluding a licensed physician, to operate as a radiation therapist in the state of Iowa, if that person cannot prove certification by the department.

c. Failing to report to the department any person who the radiation therapist knows is in violation of this rule.

d. Submitting false information in order to obtain certification or renewal certification as a radiation therapist.

e. Any action that the department determines may jeopardize the public or radiation therapist's health and safety.

42.3(10) *Fees.* All radiation therapists certified under this chapter shall pay fees as specified in 641—subrule 38.8(6).

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

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◊ Two or more ARCs

1 Effective date of Ch 42 delayed 70 days by the administrative rules review committee. [Published IAC 6/23/82]

2 Subrule 42.1(4)*"b"*(4) is rescinded two years subsequent to the effective date of rule 42.1(136C).

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]