CHAPTER 42

PERMIT TO OPERATE IONIZING RADIATION PRODUCING MACHINES OR ADMINISTER RADIOACTIVE MATERIALS

641—42.1(136C) Purpose. The purpose of this chapter is to specify the permit requirements of individuals who operate or use ionizing radiation producing machines or administer radioactive materials on or to human patients or human research subjects for diagnostic or therapeutic purposes. This chapter establishes minimum formal education standards and examination, continuing education, and disciplinary procedures.

[ARC 0577C, IAB 2/6/13, effective 3/13/13]

641-42.2(136C) Definitions.

"ARRT" means the American Registry of Radiologic Technologists.

"*Authorized user*" means an Iowa-licensed physician identified on a specific radioactive materials license or a license of broad scope as defined in 641—subrule 41.2(2).

"Body composition scan" means the use of a low dose X-ray to generate images of a color-coded body map.

"Bone densitometry" means the art and science of applying ionizing radiation to the human body using a dual energy X-ray absorptiometry unit for the sole purpose of measuring bone density.

"Category" defines specific duties allowed in the limited radiologic technologist permit classification.

"*Classification*" means a specific class of permit that allows the permit holder to perform the duties specified for that permit class.

"Computed tomography" or *"CT"* means a technique for generating a series of X-ray images taken from different angles and processed with computer software.

1. "Diagnostic computed tomography" means the use of computed tomography to create cross-sectional images of the human body to be used for diagnosis.

2. "Attenuation correction" means the use of X-rays from a CT scan to construct an attenuation map of density differences throughout the body that can then be used to correct for the absorption of the photons emitted from Fludeoxyglucose (¹⁸F) decay during a PET/CT scan.

"Continuing education activity" means a learning activity that is recognized as continuing education by the ARRT or NMTCB.

"Department" means the Iowa department of public health.

"Expiration date" means 11:59 p.m. on the stated date.

"Formal education" means a course of classroom and clinical instruction which meets the training standards set by the department.

"Ionizing radiation producing machine" or *"radiation machine"* means an assemblage of components for the controlled production of X-rays. An ionizing radiation producing machine 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.

"NMTCB" means Nuclear Medicine Technology Certification Board.

"Nuclear medicine diagnostic computed tomography endorsement" means a qualification that allows a nuclear medicine technologist to perform diagnostic computed tomography of the human body as ordered by an individual authorized by Iowa law to order radiography.

"*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.

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"Nuclear medicine technologist" means an individual who performs nuclear medicine procedures while under the supervision of an authorized user. The classifications are as follows:

1. "General nuclear medicine technologist" performs any nuclear medicine procedures and may perform computed tomography for attenuation correction during PET/CT or SPECT/CT only.

2. "Limited nuclear medicine technologist" performs nuclear medicine procedures only as approved by the department at the time the initial permit was issued.

"*Permit*" means the document issued to an individual by the department when the individual has met the requirements of this chapter. This document authorizes the individual to perform the duties allowed for the classification of permit issued.

"PET/CT" means an imaging modality that uses positron emission tomography and computed tomography in one device to combine the structural anatomic information with functional data collected during the examination.

"Radiation therapist" means an individual who performs radiation therapy under the supervision of a radiation oncologist licensed in Iowa.

"Radiation therapy" means the science and art of performing simulation radiography or applying ionizing radiation emitted from X-ray machines, particle accelerators, or radioactive materials in the form of sealed sources to human beings for therapeutic purposes.

"Radiography" means a technique for generating and recording an X-ray pattern for the purpose of providing the user with an image(s) during or after termination of the exposure.

"Radiologic technologist" means an individual, excluding X-ray equipment operators, who performs radiography of the human body as ordered by an individual authorized by Iowa law to order radiography. The classifications are as follows:

1. "General radiologic technologist" performs radiography and computed tomography of any part of the human body.

2. "Limited radiologic technologist" performs radiography for the chest, spine, extremities, shoulder or pediatrics, excluding computed tomography and fluoroscopy.

3. "Limited in-hospital radiologic technologist" performs radiography of any part of the human body as approved by the department at the time the initial permit was issued.

"*Radiologist assistant*" means an advanced-level radiologic technologist who has completed the necessary requirements in order to perform procedures as outlined in ARRT guidance while under supervision of a radiologist.

"SPECT/CT" means an imaging modality that uses single-photon emission computed tomography and computed tomography in one device to combine the structural anatomic information with functional data collected during the examination.

"Student" means an individual enrolled in and participating in formal education.

"Therapeutic" means a medical treatment using radiation for therapy purposes.

"X-ray equipment operator" means an individual performing radiography of the human body using dedicated equipment as ordered by an individual authorized by Iowa law to order radiography. These individuals do not qualify for a permit in any other classification. The classifications are as follows:

1. "Podiatric X-ray equipment operator" performs radiography of only the foot and ankle using dedicated podiatric equipment. Studies using computed tomography, fluoroscopy, or nondedicated equipment are prohibited.

2. "Bone densitometry equipment operator" performs bone densitometry using only dual energy X-ray absorptiometry equipment. Studies using computed tomography, fluoroscopy, or nondedicated equipment are prohibited.

[ARC 0577C, IAB 2/6/13, effective 3/13/13; ARC 3239C, IAB 8/2/17, effective 9/6/17; ARC 5683C, IAB 6/16/21, effective 7/21/21]

641-42.3(136C) Exemptions.

42.3(1) The following are exempt from obtaining a permit as required by this chapter:

- a. A licensed physician.
- b. A licensed physician's assistant.
- c. A licensed chiropractor.

- *d*. A licensed dentist.
- e. A licensed dental hygienist.
- f. A licensed podiatrist.
- g. An individual certified by the dental board in dental radiography.
- h. A student as a part of the student's formal education.

42.3(2) The department may, upon application or upon its own initiative, grant such exemptions from the requirements of this chapter as it determines are authorized by law and will not result in undue hazard to public health and safety. Application for exemptions should be made in accordance with 641—Chapter 178.

[ARC 0577C, IAB 2/6/13, effective 3/13/13]

PERMIT APPLICATION AND RENEWAL

641—42.4(136C) Permit application and renewal. An individual shall not operate ionizing radiation producing machines or administer radioactive materials for diagnostic or therapeutic purposes unless the individual possesses a current Iowa permit in the individual's classification of practice. [ARC 0577C, IAB 2/6/13, effective 3/13/13]

641—42.5(136C) Permit to practice as a general radiologic technologist.

42.5(1) An individual applying for an initial permit shall:

- *a.* Be at least 18 years of age.
- b. Submit the appropriate completed application.
- *c*. Submit a nonrefundable \$100 application fee.
- *d.* Submit proof of a passing score on the ARRT general radiography examination.

42.5(2) An individual renewing a current permit shall:

a. Renew annually by submitting a renewal application and a nonrefundable \$75 renewal fee.

b. Report 24.0 hours of continuing education obtained within the biennium indicated on the individual's permit.

42.5(3) An individual reinstating an expired permit shall submit the following:

a. Application to reinstate and nonrefundable \$150 application fee. If the permit is expired six months or more, all previous exemptions from this chapter are no longer valid and the individual is subject to all requirements of subrule 42.5(1).

b. Any continuing education hours due at time of renewal. If the permit is expired more than one year past the expiration date, 24.0 hours of continuing education obtained within the previous 24 months must be submitted.

c. Proof that all stipulations of any order(s) of disciplinary or enforcement action have been satisfied.

[ARC 0577C, IAB 2/6/13, effective 3/13/13; ARC 4612C, IAB 8/14/19, effective 9/18/19]

641—42.6(136C) Permit to practice as a general nuclear medicine technologist.

42.6(1) An individual applying for an initial permit shall:

- *a.* Be at least 18 years of age.
- b. Submit the appropriate completed application.
- c. Submit a nonrefundable \$100 application fee.

d. Submit proof of a passing score on ARRT's nuclear medicine examination or the NMTCB nuclear medicine examination.

42.6(2) An individual renewing a current permit shall:

a. Renew annually by submitting a renewal application and a nonrefundable \$75 renewal fee.

b. Report 24.0 hours of continuing education obtained within the biennium indicated on the individual's permit.

42.6(3) An individual reinstating an expired permit shall submit the following:

a. Application to reinstate and nonrefundable 150 application fee. If the permit is expired six months or more, all previous exemptions from this chapter are no longer valid and the individual is subject to all requirements of subrule 42.6(1).

b. Any continuing education hours due at time of renewal. If the permit is expired more than one year past the expiration date, 24.0 hours of continuing education obtained within the previous 24 months must be submitted.

c. Proof that all stipulations of any order(s) of disciplinary or enforcement action have been satisfied.

42.6(4) An individual applying for a nuclear medicine diagnostic computed tomography endorsement shall:

a. Maintain an active permit to practice as a general nuclear medicine technologist. Endorsements may not be held without an active permit.

b. Submit proof of a passing score on the ARRT or NMTCB computed tomography examination. [ARC 0577C, IAB 2/6/13, effective 3/13/13; ARC 3239C, IAB 8/2/17, effective 9/6/17; ARC 4612C, IAB 8/14/19, effective 9/18/19]

641—42.7(136C) Permit to practice as a radiation therapist.

42.7(1) An individual applying for an initial permit shall:

- *a.* Be at least 18 years of age.
- *b.* Submit the appropriate completed application.
- *c*. Submit a nonrefundable \$100 application fee.

d. Submit proof of a passing score on the ARRT's radiation therapy examination.

42.7(2) An individual renewing a current permit shall:

a. Renew annually by submitting a renewal application and a nonrefundable \$75 renewal fee.

b. Report 24.0 hours of continuing education obtained within the biennium indicated on the individual's permit.

42.7(3) An individual reinstating an expired permit shall submit the following:

a. Application to reinstate and nonrefundable 150 application fee. If the permit is expired six months or more, all previous exemptions from this chapter are no longer valid and the individual is subject to all requirements of subrule 42.7(1).

b. Any continuing education hours due at time of renewal. If the permit is expired more than one year past the expiration date, 24.0 hours of continuing education obtained within the previous 24 months must be submitted.

c. Proof that all stipulations of any order(s) of disciplinary or enforcement action have been satisfied.

[ARC 0577C, IAB 2/6/13, effective 3/13/13; ARC 4612C, IAB 8/14/19, effective 9/18/19]

641—42.8(136C) Permit to practice as a radiologist assistant.

42.8(1) An individual applying for an initial permit shall:

- a. Submit the appropriate completed application.
- *b.* Submit a nonrefundable \$100 application fee.
- *c.* Submit proof of completion of formal education for a radiologist assistant.
- *d.* Submit proof of one year of experience as a general radiologic technologist.

e. Submit proof of passing score on the ARRT radiologist assistant examination or another examination that is recognized by the department.

42.8(2) An individual renewing a current permit shall:

a. Renew annually by submitting a renewal application and a nonrefundable \$75 renewal fee.

b. Report 50.0 hours of continuing education obtained within the biennium indicated on the individual's permit. Radiologist assistant permit holders must obtain at least one-half of the required continuing education in subject areas specific to radiography. The remainder may be earned as physician credit hours.

42.8(3) An individual reinstating an expired permit shall submit the following:

a. Application to reinstate and nonrefundable \$150 application fee. If the permit is expired six months or more, all previous exemptions from this chapter are no longer valid and the individual is subject to all requirements of subrule 42.8(1).

b. Any continuing education hours due at time of renewal. If the permit is expired more than one year past the expiration date, 50.0 hours of continuing education obtained within the previous 24 months must be submitted.

c. Proof that all stipulations of any order(s) of disciplinary or enforcement action have been satisfied.

[ARC 0577C, IAB 2/6/13, effective 3/13/13; ARC 4612C, IAB 8/14/19, effective 9/18/19]

641—42.9(136C) Permit to practice as a limited radiologic technologist with categories of chest, spine, extremities, shoulder, pediatric. An individual with a limited radiologic technologist permit shall perform radiography only within the scope of the category(ies) in which the permit is issued.

42.9(1) The scope of each category is defined as follows:

a. "Chest" allows the permit holder to perform radiography of the lung fields including the cardiac shadow, as taught in the limited radiography formal education standards. Chest radiograph techniques shall not be manipulated for the evaluation of the shoulder, clavicle, scapula, ribs, thoracic spine and sternum. Limited radiologic technologists who have completed the appropriate formal education after January 1, 2009, may perform lateral decubitus chest views.

b. "Extremities" allows the permit holder to perform radiography for body parts from:

(1) The distal phalanges of the foot to the head of the femur, including its articulation with the pelvic girdle. True hip radiographs are prohibited.

(2) The distal phalanges of the hand to the head of the humerus. These projections may include the acromioclavicular or glenoid-humeral areas. The radiograph shall not include any of the views in the shoulder category unless the individual holds a limited radiologic technologist permit that includes the shoulder category.

c. "Spine" allows the permit holder to perform radiography of the spine in the approved areas only. Approved areas and limitations are described as:

(1) Cervical vertebrae.

(2) Thoracic (dorsal) vertebrae.

(3) Lumbar vertebrae to include the articulations with the sacrum and coccyx and the sacral articulation with the pelvic girdle. True pelvis radiographs or other projections performed with the image receptor positioned perpendicular to the long axis of the torso are prohibited under this category.

(4) All projections shall be performed as taught in the limited radiologic technologist formal education standards.

d. "Shoulder" allows the permit holder to perform radiography of the shoulder in the approved projections only. Approved projections and limitations are described as:

- (1) AP internal and external rotation.
- (2) AP neutral.
- (3) Transthoracic lateral views.
- (4) Scapular "Y" lateral.

(5) The image may not include the proximal end of the clavicle on any AP projection. All other shoulder views are prohibited. The permit holder must hold a limited radiologic technologist permit with a category of either chest or extremity in order to be granted the shoulder category.

e. "Pediatric" allows the permit holder to perform radiography of either chest or extremities or both as defined in paragraphs 42.9(1) "*a*" and "*b*" above for patients aged 36 months and under. The permit holder must hold a limited radiologic technologist permit with the minimum categories of chest or extremities or both in order to qualify for pediatric radiography. This designation allows permit holders to perform pediatric radiography within the permit classifications listed on their permit only. All other projections on pediatric patients by limited radiologic technologists are prohibited.

42.9(2) An individual applying for an initial permit shall:

a. Be at least 18 years of age.

- *b.* Submit the appropriate completed application.
- c. Submit a nonrefundable \$100 application fee.

d. Submit proof of completion of formal education in all limited diagnostic radiography categories for which the individual is applying. In order to apply for the shoulder category, the individual must also apply for the chest or extremity category. In order to apply for the pediatric category, the individual must also apply for the chest or extremity category. Each individual making application to attend a formal education course provided by the department to fulfill the requirements of 42.9(2) "d" must submit an application and nonrefundable fee of \$200 to the department each time the individual attends a course.

e. Submit proof of completion of testing as applicable for each permit category for which the individual is applying on the limited radiologic technologist permit. No examination is required for the categories of shoulder or pediatric.

(1) The following are passing scores:

1. A score of at least 70 percent on the ARRT limited scope of practice in radiography examination core section and at least 70 percent on each category; or

2. A score of at least 70 percent on the American Chiropractic Registry of Radiologic Technologists Limited Radiography examination; or

3. A score of at least 70 percent on a department-approved examination.

(2) Three failed attempts on the examination in 42.9(2) "e"(1)"1" or "3" will require the individual to repeat the formal education or complete a department-approved review program.

(3) Each individual making application to take an examination as a limited radiologic technologist in 42.9(2) "e"(1)"1" or "3" must submit an application and nonrefundable fee of \$200 to the department each time the individual takes the examination.

f. Submit proof of completion of formal education and examination in the category to be added and a nonrefundable \$40 amendment fee to add chest, extremity or spine category to an existing limited radiologic technologist permit. A score of at least 70 percent on each category is required.

g. Submit proof of completion of formal education and a nonrefundable \$40 amendment fee to add shoulder or pediatric category to an existing limited radiologic technologist permit. No examination is required.

42.9(3) An individual renewing a current permit shall:

a. Renew annually by submitting a renewal application and a nonrefundable \$75 renewal fee.

b. Report 12.0 hours of continuing education obtained within the biennium indicated on the individual's permit.

42.9(4) An individual reinstating an expired permit shall submit the following:

a. Application to reinstate and nonrefundable \$150 application fee. If the permit is expired six months or more, all previous exemptions from this chapter are no longer valid and the individual is subject to all requirements of rule 641-42.9(136C).

b. Any continuing education hours due at time of renewal. If the permit is expired more than one year past the expiration date, 12.0 hours of continuing education obtained within the previous 24 months must be submitted.

c. Proof that all stipulations of any order(s) of disciplinary or enforcement action have been satisfied.

[ARC 0577C, IAB 2/6/13, effective 3/13/13; ARC 1931C, IAB 4/1/15, effective 5/6/15; ARC 4612C, IAB 8/14/19, effective 9/18/19]

641—42.10(136C) Permit to practice as an X-ray equipment operator in either podiatric radiography or bone densitometry (dual energy X-ray absorptiometry). After January 1, 2015, all individuals performing only bone densitometry or other examinations using DEXA machines must hold a bone densitometry permit.

42.10(1) An individual applying for an initial permit shall:

- a. Be at least 18 years of age.
- *b.* Submit the completed application.
- c. Submit a nonrefundable \$40 application fee.

d. Submit proof of completion of formal education that meets the department minimum training standards. Each individual making application to attend an X-ray equipment operator formal education course provided by the department to fulfill the requirement of 42.10(1) "*d*" must submit an application and nonrefundable fee of \$150 to the department each time the individual attends the course.

e. Submit proof of at least a 70 percent score on a department-approved examination.

(1) Three failed attempts on the examination in 42.10(1) "e" will require the individual to repeat the formal education or complete a department-approved review program.

(2) Each individual making application to take an examination as an X-ray equipment operator to meet the requirements of 42.10(1) "e" must submit an application and nonrefundable fee of \$100 to the department each time the individual takes the examination.

42.10(2) An individual renewing a current permit shall:

a. Renew annually by submitting a renewal application and a nonrefundable \$40 renewal fee.

b. Report 4.0 hours of continuing education obtained within the biennium indicated on the individual's permit.

42.10(3) An individual reinstating an expired permit shall submit the following:

a. Application to reinstate and nonrefundable \$75 application fee. If the permit is expired six months or more, all previous exemptions from this chapter are no longer valid and the individual is subject to all requirements of subrule 42.10(1).

b. Any continuing education hours due at time of renewal. If the permit is expired more than one year past the expiration date, 4.0 hours of continuing education obtained within the previous 24 months must be submitted.

c. Proof that all stipulations of any order(s) of disciplinary or enforcement action have been satisfied.

[ARC 0577C, IAB 2/6/13, effective 3/13/13; ARC 4612C, IAB 8/14/19, effective 9/18/19; ARC 5683C, IAB 6/16/21, effective 7/21/21]

641-42.11 Reserved.

641-42.12(136C) Closed classification or category permits.

42.12(1) The following classifications or categories are closed to new applicants. Permits in the following classifications or categories that are expired for more than six months are not eligible to be reinstated, and individuals shall maintain current permits as outlined below:

a. Limited in-hospital radiologic technologist shall:

(1) Perform diagnostic radiography procedures, excluding CT and fluoroscopy, in a hospital setting only for specific body parts for which the individual is qualified.

(2) Renew annually by submitting a renewal application and a nonrefundable \$75 renewal fee.

(3) Report 24.0 hours of continuing education obtained within the biennium indicated on the individual's permit.

b. Limited nuclear medicine technologist shall:

(1) Perform nuclear medicine procedures for which the individual is qualified and has been authorized by the department.

(2) Renew annually by submitting a renewal application and a nonrefundable \$75 renewal fee.

(3) Report 12.0 hours of continuing education obtained within the biennium indicated on the individual's permit.

c. Limited radiologic technologist paranasal sinus shall:

(1) Perform diagnostic radiography procedures, excluding CT and fluoroscopy, specific to paranasal sinus.

(2) Renew annually by submitting a renewal application and a nonrefundable \$75 renewal fee.

(3) Report 6.0 hours of continuing education obtained within the biennium indicated on the individual's permit.

42.12(2) An individual renewing a permit expired less than six months shall submit the following: *a*. Application to reinstate and nonrefundable \$150 application fee.

b. Any continuing education hours due at time of renewal.

c. Proof that all stipulations of any order(s) of disciplinary or enforcement action have been satisfied.

[ARC 0577C, IAB 2/6/13, effective 3/13/13; ARC 4612C, IAB 8/14/19, effective 9/18/19]

641—42.13(136C) Combining permits for an individual qualifying for permits in more than one classification.

42.13(1) An individual applying for an initial permit in more than one classification at the same time shall combine classifications on one permit by:

a. Indicating each classification on the appropriate completed application;

b. Submitting the required documentation for each classification as outlined in each classification section; and

c. Submitting a nonrefundable \$150 application fee.

42.13(2) Permit holders shall add a classification to an existing permit by:

a. Completing the appropriate application;

b. Submitting the required documentation as outlined in the section specific to the classification to be added; and

c. Submitting a nonrefundable \$40 fee.

42.13(3) An individual renewing a combined classification permit must submit the appropriately completed renewal application and submit a nonrefundable \$110 renewal fee.

42.13(4) An individual shall submit a total of 24.0 hours of continuing education obtained within the biennium indicated on the individual's permit. If the permit includes the radiologist assistant classification, then the individual must submit a total of 50.0 hours of continuing education obtained within the biennium indicated on the individual's permit.

42.13(5) An individual reinstating an expired permit shall submit the following:

a. Application to reinstate and a nonrefundable \$150 application fee. If the permit is expired six months or more, all previous exemptions from this chapter are no longer valid and the individual is subject to all requirements of subrule 42.7(1).

b. Any continuing education hours due at time of renewal. If the permit is expired more than one year past the expiration date, 24.0 hours of continuing education obtained within the previous 24 months must be submitted. If the permit includes the radiologist assistant classification, then the individual must submit a total of 50.0 hours of continuing education obtained within the biennium indicated on the individual's permit.

c. Proof that all stipulations of any order(s) of disciplinary or enforcement action have been satisfied.

[ARC 0577C, IAB 2/6/13, effective 3/13/13; ARC 4612C, IAB 8/14/19, effective 9/18/19; ARC 5683C, IAB 6/16/21, effective 7/21/21]

641—42.14 to 42.17 Reserved.

PERMIT HOLDER SUBMISSION OF CONTINUING EDUCATION

641—42.18(136C) Submission of proof of completion of continuing education by permit holder to meet continuing education requirements to renew or reinstate a permit.

42.18(1) A permit holder who has a current ARRT or NMTCB registration that has been renewed within 60 days prior to the submission of the permit renewal application required by these rules shall be credited the number of hours recognized by the ARRT or NMTCB registration, or

42.18(2) A permit holder must submit proof of completion of continuing education activities recognized by ARRT or NMTCB.

a. Acceptable proof of completion must be documentation signed and dated by the continuing education provider that includes the participant's name, title of the activity, approval number for the activity, dates of attendance, number of contact hours for the activity, name of the approving organization, and signature of the sponsor or instructor or authorized representative of the sponsor or instructor.

b. Continuing education activities that are lecture presentations may not be repeated for credit in the same biennium.

c. All continuing education activities that are not lecture presentations may not be repeated for credit in the same or any subsequent biennium.

42.18(3) Podiatric X-ray equipment operator permit holders may submit activities as described in 42.18(2) or may submit activities sponsored by the American Podiatric Medical Association or the Iowa Podiatric Medical Society.

a. Acceptable proof of completion must be documentation signed and dated by the continuing education provider that includes the participant's name, title of the activity, approval number for the activity, dates of attendance, number of contact hours for the activity, the name of the approving organization, and signature of the sponsor or instructor or authorized representative of the sponsor or instructor.

b. Continuing education activities that are lecture presentations may not be repeated for credit in the same biennium.

c. All continuing education activities that are not lecture presentations may not be repeated for credit in the same or any subsequent biennium.

[ARC 0577C, IAB 2/6/13, effective 3/13/13]

641-42.19 and 42.20 Reserved.

ADMINISTRATIVE ITEMS AND GROUNDS FOR DISCIPLINARY ACTION

641-42.21(136C) Administrative items.

42.21(1) A nonrefundable \$25 fee shall be assessed for each check returned for any reason. All fees for returned checks plus original fees must be paid by certified bank check or money order.

42.21(2) A permit is valid from the date of issuance until the expiration date, unless otherwise revoked or suspended.

42.21(3) The department may at any time require further documentation to ensure compliance with these rules.

42.21(4) The permit holder shall make the permit available at the individual's place of employment. If the permit holder works at more than one facility, a duplicate of the permit shall be kept at each facility.

42.21(5) The permit holder must maintain proof of continuing education for at least three years.

42.21(6) Continuing education obtained to satisfy disciplinary or enforcement action or as part of a corrective action plan may not be reported to meet continuing education requirements.

42.21(7) All permit holders are subject to a department audit at any time.

[ARC 0577C, ÍAB 2/6/13, effective 3/13/13]

641—42.22(136C) Rules of conduct, self-reporting requirements, and enforcement actions for all permit holders or applicants.

42.22(1) *Rules of conduct.* These are mandatory standards of minimally acceptable professional conduct intended to promote the protection, safety, and comfort of patients. Any individual who fails to meet or allows any other individual to fail to meet the following standards may be subject to enforcement actions as outlined in subrule 42.22(3). The following shall be grounds for disciplinary action:

a. Failing to perform with reasonable skill and safety all procedures accepted under this chapter's educational guidelines and allowed under the individual's permit.

b. Operating as a permitted individual without meeting the applicable requirements of this chapter. This includes performing procedures not allowed under the individual's current permit.

c. Failing to report immediately to the department any individual who may be operating as a permit holder and who does not meet the requirements of this chapter.

d. Engaging in any practice that results in unnecessary danger to a patient's life, health, or safety. This includes delegating or accepting the delegation of any function when the delegation or acceptance could cause unnecessary danger.

e. Engaging in any action that the department determines may jeopardize the health and safety of the public, other staff or the permit holder. These actions shall include but not be limited to:

(1) A misdemeanor or felony which may impair or limit the individual's ability to perform the duties authorized by the individual's permit.

(2) Any disciplinary action brought against the individual in connection with a certificate or license issued from a certifying or licensing entity.

(3) Being found guilty of incompetence or negligence during the individual's performance as a permit holder.

f. Failing to conform to applicable state and federal statutes and rules. This includes any action that might place a facility in noncompliance with Iowa statutes and rules.

g. Practicing when there is an actual or potential inability to perform with reasonable skill and safety due to illness, use of alcohol, drugs, chemicals, or any other material, or as the result of any mental or physical condition.

h. Engaging in any unethical conduct or conduct likely to deceive, defraud, or harm the public; or demonstrating a willful or careless disregard for the health, welfare, or safety of a patient.

i. Revealing privileged communication from or relating to former or current patients except as permitted by law.

j. Improperly managing patient records, including failing to maintain adequate records, failing to furnish records, or making, causing, or allowing anyone to make a false, deceptive, or misleading entry into a patient record.

k. Providing false or misleading information that is directly related to the care of a former or current patient.

l. Interpreting or rendering a diagnosis for a physician based on a diagnostic image or prescribing medications or therapies.

m. Failing to immediately report to a supervisor information concerning an error made in connection with imaging, treating, or caring for a patient. This includes any departure from the normal standard of care and behavior that is negligent.

n. Employing fraud or deceit to obtain, attempt to obtain or renew a permit under this chapter or in connection with a certification or license issued from a certifying or licensing entity. This includes altering documents, failing to provide complete and accurate responses or information, indicating falsely in writing that a permit is valid when that is not the case, or any form of examination subversion.

o. Failure to provide truthful, accurate, unaltered, or nondeceptive information related to continuing education activities to the department or a record keeper.

p. Assisting others to provide false, inaccurate, altered, or deceptive information related to continuing education to this department or a record keeper. This includes sharing answers, providing or using false certificates of participation, or verifying continuing education hours that have not been earned.

q. Failure to pay all fees or costs required to meet the requirements of this chapter. Penalties for working without a current permit will be considered on a case-by-case basis.

r. Failure to respond to an audit request or failure to provide proper documentation.

s. Submitting false information to a facility that might place the facility in noncompliance with any federal or state statutes or laws.

t. Engaging in any conduct that subverts or attempts to subvert a department investigation.

u. Failure to comply with a subpoena issued by the department or failure to cooperate with an investigation by the department.

v. Failure to comply with the terms of a department order or the terms of a settlement agreement or consent order.

w. Sexual harassment of a patient, student or supervisee. Sexual harassment includes sexual advances, sexual solicitation, requests for sexual favors, and other verbal and physical conduct of a sexual nature.

x. Violating a statute of this state, another state, or the United States, without regard to its designation as either a felony or misdemeanor, including but not limited to a crime involving dishonesty,

fraud, theft, embezzlement, controlled substances, substance abuse, assault, sexual abuse, sexual misconduct, or homicide. A copy of the record of conviction or plea of guilty is conclusive evidence of the violation.

y. Having a permit, license or certification related to the classification of the permit issued to the individual suspended or revoked or having other disciplinary action taken by a licensing or certifying authority of this state or another state, territory or country. A copy of the record or order of suspension, revocation, or disciplinary action is conclusive or prima facie evidence.

z. Failure to respond within 30 days of receipt of communication from the department.

42.22(2) *Self-reporting*. Each permit holder shall:

a. Submit a report to the department within five days of the final disposition of all criminal proceedings, convictions, or military court-martials involving alcohol or illegal drug use while operating as a permit holder, sex-related infractions, or patient-related infractions in any state, territory, or country.

b. Submit a written report to the department within five days of the initial charge and within five days of the final disposition of any disciplinary action brought against the individual in connection with a certificate or license issued from a certifying or licensing entity, or any disciplinary action brought against the individual by an employer or patient.

c. Report potential ethics violations (including state licensing issues and criminal charges and convictions) within 30 days of the occurrence or during the permit holder's annual renewal process, whichever comes first.

42.22(3) Enforcement actions. Enforcement actions may include, but are not limited to, denial, probation, suspension or revocation of a permit, directed corrective action, and civil penalty. [ARC 0577C, IAB 2/6/13, effective 3/13/13; ARC 5683C, IAB 6/16/21, effective 7/21/21]

641—42.23(136C) Procedures for demand for information, notice of proposed action, and orders for penalties, suspensions, revocations, and civil penalties for all individuals under this chapter. These actions may be imposed on any permit holder who violates any rule in this chapter.

42.23(1) Demand for information.

a. The department may issue a demand for information for the purpose of determining whether any further action shall be taken. The demand shall state the alleged violations and allow the individual 20 days from the date of the letter to file a written answer with the department.

b. The individual must file a written answer to the department. The answer shall specifically admit or deny each allegation or charge made in the demand for information and provide fact and law on which the answer relies, set forth reasons why the demand should not have been issued, and if the requested information is not provided, the reasons why it is not provided.

c. Upon review of the answer, the department may institute the next level of proceeding or consider the matter closed. If no answer is filed, the department shall institute the notice of proposed action.

42.23(2) Procedures for enforcement actions.

a. Notice of proposed action.

(1) In response to an alleged violation of any provision of the Iowa Code, these rules, or any order issued by the department, the department may issue a written notice of proposed action. The notice of proposed action shall concisely state the alleged violation(s), the action the department is proposing, the time period in which a written response must be received, and the process for requesting a hearing.

(2) A written response must state any facts, explanations, or arguments denying the violations or must demonstrate any extenuating circumstances, error in the notice, or other reason why the proposed action should not be imposed. Responses may also request remission or mitigation of any penalty.

(3) If a request for a hearing is received within the allotted time period, the proposed action shall be suspended pending the outcome of the hearing. Prior to or at the hearing, the department may rescind the notice of proposed action upon satisfaction that the reason for the proposed action has been resolved.

(4) If no answer is filed, the department shall institute the order.

b. Order. An order may be issued upon response to the notice of proposed action or if no answer to the notice has been filed. The order may institute a proceeding to impose a penalty or suspend, revoke, or place on probation the individual's permit, or issue a civil penalty. An order shall concisely state the

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violation(s), the action the department has imposed, the effective date of the order, the time period for written response to be received by the department, and the process for requesting a hearing. If there has been consent in writing to the notice of proposed action, no written response to the order is necessary.

(1) If a request for a hearing is received within the allotted time period, the proposed action of the order shall be suspended pending the outcome of the hearing. Prior to or at the hearing, the department may rescind the order upon satisfaction that the reason for the proposed action has been resolved.

(2) If no answer is filed, the department shall institute the order. A consent to the order shall constitute a waiver to a hearing, findings of fact and conclusions of law, and of all right to seek department and judicial review or to contest the validity of the order in any form as to those matters which have been consented to or agreed to or on which a hearing has not been requested. An order that has been consented to shall have the same force and effect as an order made after hearing by a presiding officer or the department and shall be effective as provided in the order. Failure to comply with an order either consented to or validated by a hearing officer shall result in further enforcement action.

c. Civil penalty. Before instituting any proceeding to impose a civil penalty, the department shall serve written notice of violation upon the individual charged. This notice shall be included in the notice of proposed action or order issued. The notice of proposed action or order shall specify the amount of each proposed penalty for each alleged violation. The notice or order shall state that the amount charged may be paid as specified or protested in its entirety or in part. Upon final action of a civil penalty, payment must be made within the specified time stated in the order or the department may refer the matter to the attorney general for collection.

d. Settlement and compromise. At any time after the issuance of a notice or order designating the time and place of hearing in response to an order, the department and the regulated individual may enter into a stipulation for a settlement or compromise of the notice or order. The stipulation of compromise shall be subject to approval by the designated presiding officer or, if none has been designated, by the chief administrative law judge. The presiding officer or chief administrative law judge may order such adjudication of the issued notice or order as deemed to be required in the public interest to dispose of the proceeding. If approved, the terms of the settlement or compromise shall be embodied in a decision or order settling and discontinuing the proceeding.

[ARC 0577C, IAB 2/6/13, effective 3/13/13]

641-42.24 and 42.25 Reserved.

641-42.26(136C) Rescinded ARC 5683C, IAB 6/16/21, effective 7/21/21.

641—42.27 to 42.29 Reserved.

FORMAL EDUCATION

641—42.30(136C) Requirements for formal education. Formal education must meet the following minimum requirements:

42.30(1) General radiologic technology formal education must be recognized by the ARRT to allow students to qualify for the general radiography examination.

42.30(2) Nuclear medicine technology formal education must be recognized by the ARRT or NMTCB to allow students to qualify for the nuclear medicine technology examination.

42.30(3) Radiation therapy formal education must be recognized by the ARRT to allow students to qualify for the radiation therapy examination.

42.30(4) Radiologist assistant formal education must provide training to allow students to qualify for a department-approved radiologist assistant examination.

42.30(5) Limited radiologic technologist formal education must meet the minimum standards specified in 641–42.31(136C).

42.30(6) X-ray equipment operator formal education must meet the minimum standards as outlined in 641—42.32(136C) or 641—42.33(136C).

[ARC 0577C, IAB 2/6/13, effective 3/13/13]

641-42.31(136C) Standards for formal education for limited radiologic technologists.

42.31(1) The formal education may be a single offering that meets all standards of all categories, or it may be offered individually specific to the category the provider wishes to offer.

42.31(2) The following are the minimum standards:

a. A principal instructor shall:

(1) Be an Iowa-licensed chiropractor teaching spine and extremities categories only; or

(2) Be an Iowa-permitted general radiologic technologist and have at least two years of current experience in radiography; or

(3) Hold a current ARRT registration and have at least two years of current experience in radiography if the clinical site is located outside of Iowa.

b. A clinical instructor shall:

(1) Be an Iowa-licensed chiropractor teaching spine and extremities categories only; or

(2) Be an Iowa-permitted general radiologic technologist and have at least two years of current experience in radiography; or

(3) Be an Iowa-permitted limited radiologic technologist in the category of instruction and have at least two years of current experience in radiography; or

(4) Hold a current ARRT registration and have at least two years of current experience in radiography if the clinical site is located outside of Iowa.

- c. Clinical instructors shall be supervised by the principal instructor.
- d. A principal instructor may also act as clinical instructor, if applicable.
- e. Classroom and clinical standards are listed below:

Category	Classroom Hours	Clinical Practice Projections	Clinical Competency Projections
Core: completed by all trainees	60		
Chest	20	30 PA or LAT	5 PA, 5 LAT
Upper extremity	20	30 (any projections)	10 (only 2 of any projection allowed)
Lower extremity	20	30 (any projections)	10 (only 2 of any projection allowed)
Shoulder	20	20 (any projections)	6 (only 2 of any projection allowed)
Spine	20	30 (any projections)	10 (only 2 of any projection allowed)
Pediatric: add on to chest	8 of initial pediatrics	20 (any projections)	2 PA, 2 LAT
Pediatric: add on to upper extremity	8 of initial pediatrics	20 (any projections)	10 (only 2 of any projection allowed)
Pediatric: add on to lower extremity	8 of initial pediatrics	20 (any projections)	10 (only 2 of any projection allowed)

(1) All competency testing for limited radiography shall be directly supervised by the principal or clinical instructor, can only begin after the classroom hours in a category have been completed, and cannot begin until after the clinical site has been approved by the department using the Initial Clinical Site Form.

(2) Clinical instructors shall directly supervise all students before the student's competency for a specific projection is documented and indirectly supervise after the student's competency for a specific projection is documented.

(3) Current permit holders completing formal education to add a category do not need to repeat the core curriculum.

42.31(3) Department approval is required before implementing any formal education or making any changes to a formal education offering.

42.31(4) Administrative items for all formal education:

a. The department reserves the right to audit or evaluate any aspect of the formal education or student progress.

b. The department may at any time require further documentation. [ARC 0577C, IAB 2/6/13, effective 3/13/13; ARC 5683C, IAB 6/16/21, effective 7/21/21]

641—42.32(136C) Standards for formal education for X-ray equipment operators in podiatric radiography.

42.32(1) The following are the minimum standards:

- *a.* A principal instructor shall:
- (1) Be an Iowa-licensed podiatrist; or

(2) Be an Iowa-permitted general radiologic technologist and have at least two years of current experience in radiography; or

(3) Hold a current ARRT registration and have at least two years of current experience in radiography if the clinical site is located outside of Iowa.

b. A clinical instructor shall:

(1) Be an Iowa-licensed podiatrist; or

(2) Be an Iowa-permitted limited radiologic technologist in the category of extremities and have at least two years of current experience in radiography; or

(3) Be an Iowa-permitted X-ray equipment operator in podiatry and have at least two years of current experience in radiography; or

(4) Be an Iowa-permitted general radiologic technologist and have at last two years of current experience in radiography; or

(5) Hold a current ARRT registration and have at least two years of current experience in radiography if the clinical site is located outside of Iowa.

- *c*. Clinical instructors shall be supervised by the principal instructor.
- d. A principal instructor may also act as clinical instructor, if applicable.
- *e*. The following are classroom and clinical standards:

(1) A minimum of 8.0 hours of classroom instruction to include radiation safety, equipment operation, patient care, and anatomy.

(2) Clinical instruction to include positioning and a minimum of 20 projections excluding the competency projections.

(3) Clinical competency projections shall include 10 projections with only 2 of any single projection allowed to count toward the competency projections.

(4) All competency testing shall be directly supervised by the principal or clinical instructor.

(5) Clinical instructors shall directly supervise all students before the student's competency for the specific projection is documented and indirectly supervise after the student's competency for the specific projection is documented.

42.32(2) Department approval is required before implementing any formal education or making any changes to a formal education offering.

42.32(3) Administrative items for all formal education:

a. The department reserves the right to audit or evaluate any aspect of the formal education or student progress.

b. The department may at any time require further documentation.

[ARC 0577C, IAB 2/6/13, effective 3/13/13]

641-42.33(136C) Standards for formal education for X-ray equipment operators in bone densitometry.

42.33(1) The following are the minimum standards:

a. A principal instructor shall have at least two years of current experience in radiography and bone densitometry and shall:

(1) Be an Iowa-permitted general radiologic technologist; or

(2) Hold a current ARRT registration if the clinical site is located outside of Iowa.

A clinical instructor shall have at least two years of current experience in radiography and bone *b*. densitometry and shall:

- (1) Be an Iowa-permitted limited radiologic technologist; or
- (2) Be an Iowa-permitted X-ray equipment operator in bone densitometry; or
- (3) Be an Iowa-permitted general radiologic technologist; or
- (4) Hold a current ARRT registration if the clinical site is located outside of Iowa.
- Clinical instructors shall be supervised by the principal instructor. С.
- d. A principal instructor shall also act as clinical instructor, if applicable.
- The following are classroom and clinical standards: е.

(1) A minimum of 8.0 hours of classroom instruction to include radiation safety, equipment operation, quality control, patient care, and anatomy.

(2) Clinical instruction to include positioning and a minimum of 10 projections excluding the competency projections.

- (3) Clinical competency projections shall include 5 projections.
- (4) All competency testing shall be directly supervised by the principal or clinical instructor.

(5) Clinical instructors shall directly supervise all students before the student's competency for the specific projection is documented and indirectly supervise after the student's competency for the specific projection is documented.

42.33(2) Department approval is required before implementing any formal education or making any changes to a formal education offering.

42.33(3) Administrative items for all formal education:

a. The department reserves the right to audit or evaluate any aspect of the formal education or student progress.

The department may at any time require further documentation. h. [ARC 0577C, IAB 2/6/13, effective 3/13/13]

These rules are intended to implement Iowa Code sections 136C.3, 136C.4, 136C.5, 136C.10, and 136C.14.

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

 $^{^{\}diamond}$ Two or more ARCs

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