PROPOSED REGULATION OF THE

STATE BOARD OF HEALTH

LCB FILE NO. R027-26I

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REVISED PROPOSED REGULATION OF

THE STATE BOARD OF HEALTH

LCB File No.

November 4, 2025 PM

EXPLANATION – Matter in *italics* is new; matter in brackets ~~[omitted material]~~ is material to be omitted.

AUTHORITY: §1, NRS 439.150, 457.065, 457.183 and 457.184; §2, NRS 457.065; §§3-17, 19, 21-24

A REGULATION relating to health and radiation; including new definitions, revising certain requirements for radiation machines for mammography, quality assurance and quality control; removing the requirement for darkroom film processing; including certain information pertaining to mammography examinations interpreted at remote locations; certain requirements concerning the scope of practice for radiologic technologist; reducing certain fees to engage in radiologic imaging and radiation therapy, increasing the fees for mammography technologists and radiation machines used for mammography, increasing and decreasing fees and creating additional fee categories for certain radioactive materials licenses and radiation producing machines, and clarification on personnel monitoring requirements for certain types of radiation machines.

Legislative Counsel's Digest:

Existing law requires the State Board of Health to adopt certain regulations for the administration of chapter 457 of NRS which relates to cancer, including, without limitation, regulations concerning the operation of radiation machines for mammography (NRS 457.065); chapter 459 of NRS which relates to the licensing, inspection and control of radioactive materials and radiation producing machines (NRS 459.030); and chapter 653 of NRS which relates to radiation therapy and radiologic imaging (NRS 653.460).

A proposed new regulation to require mammography facilities to apply for authorization to perform self-referred screening mammography examinations. **Section 1** of this regulation adds the requirement, which is consistent with NAC 459.554(2)(b).

A proposed new regulation to require mammography survey reports conducted in compliance with 21 CFR 900.12 to include certain information and to identify remote locations where radiation machines for mammography examinations are interpreted. **Section 2** of this regulation adds these requirements. The requirements are consistent with the Food and Drug Administration's (FDA), Small Entity Compliance Guide (SECG), and the additional information is necessary for the Division to ensure compliance with NAC 457 requirements.

Existing regulation provides specific definitions for operators of radiation machines for mammography. **Section 3** of this regulation adds new definitions.

Existing regulations require persons who operate a radiation machine for mammography to comply with various requirements involving the use of screen film imaging. (NAC 457.305, 457.325, 457.330, 457.390, 457.395, and 457.420) **Sections 4-9** of the regulations removes the requirements related to film processing systems and makes necessary updates to reflect current technologies that use digital imaging. There are no facilities in the State of Nevada that use screen film imaging for mammography.

Existing regulation establishes specific duties for mammographers. (NAC 457.360) **Section 10** of this regulation revises the requirements related to film imaging to reflect current technologies that use digital imaging.

Existing regulation requires mammography applicants to apply to the Radiological Health Section of the Bureau of Health Protection Services of the Division. (NAC 457.350) **Section 11** of this regulation updates the application to reflect just the Division. The Radiological Health Section of the Bureau of Health Protection Services has been reorganized and is no longer the correct name.

Existing regulation requires medical physicists to meet the qualifications set forth in Title 21 of the Code of Federal Regulations (21 CFR) part 900.12(a). (NAC 457.410) **Section 12** of this regulation adds that each medical physicist must also register with the Division. This requirement is consistent with NAC 459.150(6).

Existing regulation requires registrants to evaluate rejected mammograms but does not specify that the evaluation needs to include repeated mammograms. (NAC 457.435) **Section 13** of this regulation clarifies the regulation by adding repeated mammograms to NAC 457.435.

Existing regulation contains an inaccurate website for obtaining a copy of 21 CFR 900 and adopts documents that are referenced in 21 CFR 900. (NAC 457.285) **Section 14** of this regulation corrects the website and deletes the referenced documents that are included in 21 CFR 900, which is adopted by reference.

Existing regulation includes instruction topics for mammographers that are contained in 21 CFR 900, which is adopted by reference. (NAC 457.355) **Section 15** of this regulation removes the instruction topics from NAC 457.355.

Existing regulation does not require mammography facilities to maintain lists of physicians who interpret mammography examinations and of review workstations. (NAC 457.300) **Section 16** of this regulation adds these requirements.

Existing regulation provides specific definitions for operators of radiation producing machines. (NAC 653.010) **Section 17** adds new definitions related to revisions of NAC 653.

Existing regulation provides a specific definition for licensed practitioners. (NAC 653.042) **Section 18** of this regulation changes the definition to be consistent with NAC 459.554(4).

Existing regulations provide the scope of practice for radiologist assistants and persons who hold licenses or limited licenses. (NAC 653.400) **Section 19** of this regulation includes additional information on the scope of practice for radiologist assistants and persons who hold licenses or limited licenses and further provides the scope of practice for persons who hold a license to engage in radiologic imaging to practice in the area of Nuclear Medicine Technology.

Existing regulations specify the conditions that require monitoring for occupational doses. (NAC 459.339) **Section 20** of this regulation clarifies that monitoring is required when protective clothing or devices are worn on portions of the body to reduce radiation exposure and for persons who operate a fluoroscopy, mobile, portable, or transportable x-ray system.

Existing regulations establish fees for various types of radiation producing machines. (NAC 459.161) **Section 21** of this regulation increases the fees for radiation producing machines, decreases the fees for certain radiation producing machines, and creates new fee categories.

Existing regulations establish fees for radiation producing machines used for mammography and for mammographers. (NAC 457.295) **Section 22** of this regulation increases the fee for radiation machines used for mammography and mammographers.

Existing regulations establish fees for electronic brachytherapy devices. (NAC 459.5931) **Section 23** of this regulation reduces the fees for electronic brachytherapy, creates a new fee for noninvasive electronic brachytherapy, and moves the fee amount to NAC 459.161.

Existing regulations establish fees for licenses to engage in radiologic imaging and radiation therapy. (NAC 653.200) **Section 24** of this regulation reduces the licensing fees for renewing certain licenses.

Existing regulations establish fees for radioactive materials licenses. (NAC 459.310). **Section 25** of this regulation increases the fees for the majority of the licenses and adds new license types and fees.

Existing regulations establish the fee for late renewal of a radioactive materials license at twice the regular fee amount. (NAC 459.203) **Section 26** of this regulation reduces the fee to one and one fourth the regular fee amount.

Section 1. Proposed New Regulations

Self-referred and Self-requesting Patients for mammography*. Pursuant to NAC 459.554(2), registrants must obtain prior written approval of the Division before performing mammography examinations on self-referred or self-requesting patients. Self-referred and self-requesting patients for mammography must be asymptomatic and meet the mammography screening guidelines established by the American College of Radiology or the Division.*

Sec. 2. Proposed New Regulations

Annual Surveys and Mammography Equipment Evaluations (MEE) for Review Workstation Systems (RWS). ***(NRS 457.065****) In addition to the requirements in 21 CFR 900.12, mammography registrants shall ensure each report of an annual survey and MEE contains the following information:*

1. *Name of the Facility or, if remote, the name of the Interpreting Physician at the RWS location.*
2. *For each RWS, include the date the survey was performed, the address where the RWS is located, the manufacturer, model, and serial numbers of the RWS monitors.*
3. *The name, date, and signature of the medical physicist who performed the survey.*
4. *Verification that RWS monitors comply with the requirements in NAC 457.373.*
5. *The Quality Control (QC) manual used for the survey.*
6. *A description of any violations, deficiencies, or recommended corrective actions identified during the survey.*

Sec. 3. is hereby amended to the following:

"Mammography equipment evaluation" defined. (NRS 457.065) "Mammography equipment evaluation" has the meaning ascribed to it in 21 CFR 900.2.

"Review workstation system" defined. (NRS 457.065) "Review workstation system" (RWS) means a device which consists of a monitor, central processing unit, and Picture Archiving and Communication System (PACS) used for interpretation of mammography images.

Sec. 4. NAC 457.305 is hereby amended to read as follows:

457.305 1. The operator of a facility shall prepare or cause to be prepared a manual for quality assurance for the facility. The manual must include:

(a) The name, position and a statement of the qualifications and duties of each person at the facility who is responsible for:

(1) Supervising the performance of mammography;

(2) Performing tests for quality assurance; or

(3) Repairing or maintaining machines.

This information may be included in an attachment to the manual.

(b) Detailed provisions for a program of quality assurance for the image receptor and image processing systems of any system that is not a screen-film system at the facility. This program must be:

(1) Substantially the same as recommended by the manufacturer.

(2) Approved by the Division before it is put into effect.

(c) Detailed provisions for a program of quality assurance for the image receptor ~~[and film processing]~~ systems of any machine at the facility ~~[that uses a screen-film image receptor]~~. These provisions must:

(1) Specify the tests for quality assurance that are required to be performed at the facility.

(2) Establish the frequency with which each such test is to be performed and the range of acceptable results for each test.

(3) Specify the procedure to be followed if the result of any test is not within the acceptable range.

The program established pursuant to this paragraph must provide for the performance of tests for quality assurance in accordance with the requirements of NAC 457.420 to 457.445, inclusive.

(d) A copy of any form required to be used in connection with a test for quality assurance.

(e) Information concerning the cleaner recommended by the manufacturer of any ~~[screen]~~ *imaging device* used with a machine in the facility.

2. The operator of a facility shall ensure that adequate time is allocated for the performance of quality assurance duties.

Sec. 5. NAC 457.325 is hereby amended to read as follows:

457.325 The operator of a facility shall document all maintenance, quality assurance and quality control of the imaging processing system of each machine used at the facility for mammography ~~[and the printing equipment used at the facility for mammography]~~ in accordance with the provisions of 21 C.F.R. § 900.12.

Sec. 6. NAC 457.330 is hereby amended to read as follows:

457.330 1. The following information must be ~~[plotted and]~~ evaluated *and documented* ~~[on a control chart]~~ in accordance with the provisions of 21 C.F.R. § 900.12:

~~[(a)] The values obtained from the daily exposure and processing of sensitometric strips].~~

~~[(b)]~~ *(a)* The exposure time or mAs and the number of objects visible in the image of the breast phantom in each test of image quality.

~~[(c)]~~ *(b)* A description of any change in operating conditions made as the result of a test for quality assurance.

~~[(d)]~~ *(c)* The operating levels and control limits for each test for quality assurance performed.

2. If the information obtained pursuant to subsection 1 is not within the applicable control limits, corrective action must be completed and verified before any patients are examined or ~~[films]~~ *images* are processed.

Sec. 7. NAC 457.390 is hereby removed from the regulation as follows:

~~[457.390 1. The operator of a facility shall ensure that the following equipment is properly calibrated, and in good working order:~~

~~(a) A breast phantom [capable of depicting:~~

~~(1) A mass having a width of 0.5 millimeter or less;~~

~~(2) A calcification having a diameter of 0.24 millimeter or less; and~~

~~(3) Fibers of nylon or similar material having a width of 0.75 millimeter or less.~~

~~(b) For a facility using screen-film imaging:~~

~~(1) A wire mesh contact tool designed for use in mammography with a 40 mesh copper screen.~~

~~(2) A thermometer accurate to ± 0.5°F. A thermometer containing mercury must not be used.~~

~~(3) A sensitometer that generates blue or green light, as appropriate to the type of film used at the facility, with a reproducibility of ± 0.04 log exposure.~~

~~(4) A densitometer accurate to ± 0.02 optical density and having a range of 0.00 to 3.5 optical density.~~

~~2. A facility for mammography must use intensifying screens that have been designated by the screen manufacturer as appropriate for mammography and must use film that is matched to the spectral output of the screen as specified by the manufacturer.]~~

Sec. 8. NAC 457.395 is hereby removed from the regulations as follows:

~~[457.395 **Darkroom: Prohibited activities; cleanliness; safelight.** (NRS 457.065)~~

~~1. A person shall not smoke or eat in the darkroom of a facility for mammography.~~

~~2. The darkroom must be kept reasonably free of dust.~~

~~3. Countertops and the feed tray of any film processing equipment must be cleaned daily before any film is handled or processed.~~

~~4. Hands must be clean and dry when touching a film.~~

~~5. A darkroom safelight must be equipped with an appropriate combination of filter and bulb. Information concerning the required combination must be prominently posted in the darkroom or the area surrounding the darkroom.]~~

Sec. 9. NAC 457.420 is hereby amended to read as follows:

457.420 **Tests of ~~[film]~~ *imaging* processing equipment; action on results.**

1. A test of ~~[film processing]~~ *imaging* equipment used for mammography must be performed pursuant to 21 C.F.R. § 900.12 for each day that the equipment is in operation and before any clinical ~~[films]~~ *images* are processed.

2. The results of the tests performed pursuant to subsection 1 must be recorded, ~~[plotted on a control chart,]~~ evaluated and acted upon immediately after the test is completed and before any clinical ~~[films]~~ *images* are processed. If the results are not within the applicable control limits, corrective action must be completed and verified as successful before any clinical ~~[films]~~ *images* are processed.

Sec. 10. NAC 457.360 is hereby amended to read as follows:

457.360 1. Perform each of the mammographer's assigned duties correctly and conscientiously.

2. Stand behind a protective barrier whenever X-rays are being produced during mammography.

3. Wear on his or her torso the monitoring device assigned to him or her during all working hours.

4. Use optimum techniques of exposure.

5. Use optimum techniques for the processing of images.

6. Follow the standing orders and policies for repeated exposures established for the facility at which he or she is employed.

7. Correctly determine what views are required, based on a written protocol, and position patients properly.

8. Limit the size of the X-ray field to the area of clinical interest.

9. Instruct each patient clearly to avoid movement by the patient.

10. Use appropriate compression with due consideration to the particular circumstances of each case.

11. Handle ~~[films, cassettes for holding film and other]~~ image receptors for mammography carefully to eliminate artifacts.

12. Post his or her mammographer's certificate where it can be seen by patients.

13. Record his or her full name on the record of each patient.

14. Ensure that his or her name or initials are included in the information ~~[which appears on the edge of]~~ *associated with* each ~~[film]~~ *image* ~~[as it is exposed]~~.

15. Sign or initial the patients' log to indicate each patient upon whom the mammographer performed mammography.

16. Indicate, in the space located after his or her signature or initials in the patients' log, the number of ~~[films]~~ *images* used for each patient.

17. Comply with the standards for protection against radiation set forth in NAC 459.320 to 459.664, inclusive, and the requirements of NAC 459.780 to 459.794, inclusive.

18. Notify the Division of any violation of this chapter or chapter 459 of NAC within 30 days after the date on which the mammographer discovers the violation.

Sec. 11. NAC 457.350 is hereby amended to read as follows:

457.350 1. A person who desires to work as a mammographer in Nevada must be certified in general radiography by the American Registry of Radiologic Technologists, or by another organization approved by the Division, and must hold a valid mammographer's certificate.

2. A person who desires to work as a mammographer in Nevada may obtain a mammographer's certificate by applying to ~~[the Radiological Health Section of the Bureau of Health Protection Services of]~~ the Division. An applicant must:

(a) Satisfy the requirements of NRS 457.183; and

(b) Provide documentation satisfactory to the Division that the applicant meets the requirements of 21 C.F.R. § 900.12(a)(2).

Sec. 12. NAC 457.410 is hereby amended to read as follows:

457.410 Tests for quality assurance must be performed by a person who meets the qualifications set forth in 21 C.F.R. § 900.12(a) *and is registered with the Division.*

Sec. 13. NAC 457.435 is hereby amended to read as follows:

457.435 The operator of a facility shall ensure that an analysis of all rejected *and repeated* mammograms ~~[is]~~ *are* performed pursuant to the provisions of 21 C.F.R. § 900.12(e)(3).

Sec. 14. NAC 457.285 is hereby amended to read as follows:

457.285 1. ~~[The State Board of Health hereby adopts by reference the provisions of:~~

~~(a) The *Mammography Quality Control Manual*, American College of Radiology, Committee on Quality Assurance in Mammography, in the form most recently published, unless the Board gives notice that the most recent revision is not suitable for this State pursuant to subsection 2. A copy of this publication may be obtained {at a cost of $57.50} from the American College of Radiology, P.O. Box 533, Annapolis Junction, Maryland 20701, at the Internet address **http://www.acr.org** or by telephone at (800) 227-7762.~~

~~(b) Report No. 149, *A Guide to Mammography and Other Breast Imaging Procedures*, National Council on Radiation Protection. A copy of this publication may be obtained {at a cost of $110} from NCRP Publications, 7910 Woodmont Avenue, Suite 400, Bethesda, Maryland 20814, at the Internet address **http://www.ncrppublications.org** or by telephone at (800) 229-2652 (extension 25).~~

~~(c)]~~ 21 C.F.R. Part 900, adopted pursuant to the Mammography Quality Standards Act, in the form most recently published, unless the Board gives notice that the most recent revision is not suitable for this State pursuant to subsection 2. ~~[A copy of this publication may be obtained by mail from the Superintendent of Documents, U.S. Government Printing Office, P.O. Box 979050, St. Louis, Missouri 63197-9000, or by toll-free telephone at (866) 512-1800{, for the price of $13}. This publication is also available, free of charge, from the Government Printing Office at the Internet address **http://www.gpoaccess.gov/cfr/index.html**.]~~ *The publication is available at no charge from the National Archives Office of the Federal Register (OFR) at the Internet address https://www.archives.gov/federal-register/cfr or, if that Internet website ceases to exist, from the Division.*

2. The State Board of Health will review each revision of the publications adopted by reference pursuant to subsection 1 to ensure its suitability for the State. If the Board determines that the revision is not suitable for this State, it will hold a public hearing to review its determination and give notice of that hearing within 6 months after the date of the publication of the revision. If, after the hearing, the Board does not revise its determination, the Board will give notice that the revision is not suitable for this State

within 30 days after the hearing. If the Board does not give such notice, the revision becomes part of the publication adopted by reference pursuant to subsection 1.

Sec. 15. NAC 457.355 is hereby amended to read as follows:

NAC 457.355 1. A program of instruction in mammography that is undertaken to meet the requirements for issuance of a mammographer's certificate must be approved by the Division and comply with the provisions in the 21 CFR 900.12(a)(2). ~~[of this section~~.

~~2. The program must include instruction in:~~

~~(a) The anatomy and physiology of the female breast, with instruction in the following topics:~~

~~(1) Mammary glands.~~

~~(2) External anatomy.~~

~~(3) Subdivision for localization.~~

~~(4) Retromammary space.~~

~~(5) Central portion.~~

~~(6) Cooper's ligament.~~

~~(7) Vessels, nerves and lymphatics.~~

~~(8) Breast tissue.~~

~~(b) The classification of breast tissue.~~

~~(c) The epidemiology of the breast, methods of detecting breast cancer and sources of information relating to epidemiology of the breast.~~

~~(d) The effects of adjustments relating to the setting of the exposure timer, current and voltage.~~

~~(e) The positioning of the breast for mammography, with instruction in:~~

~~(1) The following positions:~~

~~(I) Craniocaudal.~~

~~(II) Medial lateral oblique.~~

~~(III) Axillary.~~

~~(IV) Lateral.~~

~~(V) Mediolateral.~~

~~(VI) Lateromedial.~~

~~(VII) Exaggerated angled craniocaudal.~~

~~(VIII) Craniocaudal without compression.~~

~~(IX) "Cleopatra" or 30 degrees oblique.~~

~~(X) Coned or spot compression.~~

~~(XI) Lateral oblique.~~

~~(XII) "Coathanger" or displaced.~~

~~(XIII) Modified craniocaudal.~~

~~(XIV) Modified mediolateral oblique.~~

~~(XV) Other positions as required.~~

~~(2) Magnification.~~

~~(3) Errors in positioning.~~

~~(4) Special techniques for mammography of the postoperative breast and the augmented breast.~~

~~(5) Special radiographic techniques for breast localization and specimen radiography.~~

~~(f) The evaluation and critique of mammograms, with instruction in the following topics:~~

~~(1) Criteria for determining the quality of images.~~

~~(2) The scanning of images.~~

~~(3) The detection of pathology.~~

~~(4) Benign and malignant lesions.~~

~~(5) Mass lesion borders.~~

~~(6) Calcifications.~~

~~(g) The biological effects of radiation and protection from radiation.~~
~~(h) The techniques and methods of quality assurance.~~
~~(i) The methods of breast imaging other than mammography.~~

~~3.~~ *2.* A program of instruction in mammography must provide to each person who is enrolled in the program at least 40 contact hours of training specific to mammography.

~~[4]~~ *3.* A person who is enrolled in a program of instruction in mammography pursuant to this section shall not operate a machine for mammography unless a mammographer is present while that person operates the machine and is able to stop the procedure for performing the mammogram at any time

Sec. 16. NAC 457.300 is hereby amended to read as follows:

457.300 1. Establish and maintain a program of quality assurance in accordance with the provisions of 21 C.F.R. § 900.12 for each machine and all other equipment at the facility used for mammography.

2. Ensure that:

(a) The performance of the equipment is monitored;

(b) The results of monitoring are analyzed to determine if there are any problems requiring correction;

(c) The necessary corrective action is taken whenever the results of a test for quality assurance indicate that such action is required; and

(d) If necessary corrective action is taken, the action is taken before any mammography is performed on the patient.

3. Prepare and maintain a list which includes the name of each mammographer who is authorized to operate any machine which is under the operator's control.

4. Prepare and maintain a list which includes the name of each physician who interprets mammograms.

5. Prepare and maintain a list which includes each review workstation used to interpret mammograms. This list must include the make, model, serial number, and location of each review workstation.

6. Maintain a record of each list for 3 years.

~~[4.]~~ *7.* Except as otherwise provided in NAC 457.355, not allow a person who does not hold a mammographer's certificate to operate a machine under the operator's control.

~~[5.]~~ *8.* If the facility for mammography has more than one machine, ensure that a unique machine identifier is included in the *image* information ~~[which appears on the edge of the film as it is exposed]~~.

~~[6.]~~ *9.* Ensure that all quality assurance and quality control records are kept until:

(a) The next annual inspection has been completed and the Division has determined that the facility is compliant; or

(b) The tests for quality assurance have been performed two additional times at the required frequency and are within the applicable control limits, Ê whichever is longer.

Sec. 17. NAC 653.010 is hereby amended to read as follows:

"Authorized User (AU)" defined. (NRS 653.460) *"Authorized User" has the meaning ascribed to it in NAC 459.3062, which adopts by reference Title 10 of the Code of Federal Regulations, Part 35.*

"Direct Supervision" defined. (NRS 653.460) *"Direct Supervision" means the supervising person must be present at the facility and immediately available to furnish assistance and direction throughout the performance of the procedure . It does not mean that the supervising person must be present in the room when the procedure is performed.*

"Personal Supervision" defined. (NRS 653.460) *"Personal Supervision" means the supervising person must be in attendance in the room throughout the performance of the procedure.*

"Remote Computed Tomography (CT)" defined. (NRS 653.460) *"Remote Computed Tomography" is a CT machine where certain parameters can be set by a technologist who is not in the same physical location as the machine. During Remote CT scans a person who is licensed in radiation therapy or radiologic imaging and has received training approved by the Division as being sufficient to enable the holder of the license to properly perform their assigned duties must be present with the patient throughout the CT examination.*

"Supervision" defined. (NRS 653.460) *"Supervision" means the supervising person is responsible for and must control the quality, radiation safety and protection and any other technical aspect of using ionizing radiation on human beings for diagnostic or therapeutic purposes. The supervising person is not required to be present at the facility.*

Sec. 18. NAC 653.042 is hereby amended to read as follows:

NAC 653.042 **"Licensed practitioner" defined. (NRS 653.460)** "Licensed practitioner" ~~[means a person who is licensed or authorized pursuant to chapters 630 to 640, inclusive, of NRS.]~~ *has the meaning ascribed to "licensed practitioner of the healing arts" in NAC 459.554.*

Sec. 19. NAC 653.400 is hereby amended to read as follows:

NAC 653.400 **Scope of practice for radiologist assistants and persons who hold licenses or limited licenses. (NRS 439.200, 653.460, 653.630, *NRS 653.620, NRS 653.640*)**

1. For the purpose of defining the scope of practice pursuant to paragraph (b) of subsection 1 of NRS 653.460:

(a) A radiologist assistant who is authorized to practice pursuant to NRS 653.600:

(1) May perform any duties relating to the care and management of patients, including, without limitation, radiologic imaging and interventional procedures guided by radiologic imaging, under the supervision of a radiologist who is certified by the American Board of Radiology, or its successor organization, or the American Osteopathic Board of Radiology, or its successor organization, in the areas of patient care, patient management, clinical imaging and interventional procedures.

(2) May provide initial observations concerning the images of a patient to a supervising physician who specializes in radiology.

(3) Shall not interpret images, make diagnoses, prescribe medication or therapies or otherwise engage in the practice of medicine, as defined in NRS 630.020.

(4) Shall perform his or her duties in accordance with the *Standards of Ethics* adopted by reference in subsection 2 of NAC 653.090.

(b) A person who holds a license to engage in radiation therapy issued pursuant to NRS 653.310 to 653.910, inclusive:

(1) May administer ionizing radiation emitted from X-ray machines, particle accelerators or sealed radioactive sources to human beings for therapeutic purposes.

(2) May perform simulation, procedures related to treatment planning, treatment delivery and dosimetric calculations as prescribed by a physician who is certified in radiation oncology by the American Board of Radiology, or its successor organization, or the American Osteopathic Board of Radiology, or its successor organization.

(3) May participate in procedures involving brachytherapy.

(4) Shall perform his or her duties in accordance with the *Standards of Ethics* adopted by reference in subsection 2 of NAC 653.090.

(c) A person who holds a license to engage in radiologic imaging *to practice in the area of Radiology Technologist* issued pursuant to NRS 653.310 to 653.910, inclusive:

(1) May, while under the supervision of a licensed practitioner, if applicable, use ionizing radiation for diagnostic purposes or to visualize a medical condition by applying the ionizing radiation emitted from X-ray machines to any part of the human body.

(2) May, in conjunction with the study of radiation, administer contrast agents and related drugs for diagnostic purposes.

(3) May perform diagnostic radiographic and noninterpretive fluoroscopic procedures, as prescribed by a licensed practitioner, and may assist the licensed practitioner with fluoroscopic and specialized radiologic procedures.

(4) May assist a technologist who is licensed to perform CT with CT procedures, including remote CT procedures, after receiving training approved by the Division as being sufficient to enable the holder of the license to properly perform their assigned duties.

(~~[4]~~*5*) Shall perform his or her duties in accordance with the *Standards of Ethics* adopted by reference in subsection 2 of NAC 653.090.

(d) A person who holds a license to engage in radiologic imaging to practice in the area of Nuclear Medicine Technology issued pursuant to NRS 653.310 to 653.910, inclusive:

(1) May, administer radiopharmaceuticals and related drugs to human beings for diagnostic purposes, perform in vivo and vitro detection and measurement of radioactivity, and administer radiopharmaceuticals to human beings for therapeutic purposes under the supervision of an Authorized User (AU) who is authorized by a Nevada radioactive materials license to use the radiopharmaceuticals involved.

(2) May, perform hybrid imaging including PET/CT and SPECT/CT for emission transmission and attenuation correction anatomical location and for use in radiation therapy treatment planning when performed within hybrid imaging as prescribed by a licensed practitioner and under the supervision of an AU who is authorized by a Nevada radioactive materials license to use the radiopharmaceuticals involved.

(3) May, identify, prepare and administer ionizing radiation (radioactive material and computed tomography) as prescribed by a licensed practitioner and under the supervision of an AU who is authorized by a Nevada radioactive materials license to use the radiopharmaceuticals involved.

(4) Assemble, calibrate, maintain, elute, and administer radiopharmaceuticals from a radionuclide infusion system and the generator under the supervision of an authorized user listed on a Nevada radioactive materials license.

(5) May, in conjunction with the study of radiation, administer contrast agents and related drugs for diagnostic purposes.

(6) May assist a technologist who is licensed to perform CT with CT procedures, including remote CT procedures, after receiving training approved by the Division as being sufficient to enable the holder of the license to properly perform their assigned duties.

(7) Shall perform his or her duties in accordance with the Standards of Ethics adopted by reference in subsection 2 of NAC 653.090.

(e) A person who holds a license to perform computed tomography pursuant to NRS 653.630 may perform CT, including remote CT.

(f) A person who meets the requirements in NRS 653.640 and holds a license to engage in radiation therapy, radiology technologist, or grandfathered fluoroscopy may perform fluoroscopy.

([d] *g*) A person who holds a limited license to engage in radiologic imaging issued pursuant to NRS 653.520, 653.530 or 653.540, as applicable:

(1) May perform diagnostic radiographic procedures that are prescribed by a licensed practitioner on the specific areas of interest that are within the scope of practice of such a person.

(2) May assist a licensed practitioner or radiographer during static radiographic procedures.

(3) May perform radiographic examinations within the scope of practice of such a person.

(4) Shall perform his or her duties in accordance with the *Standards of Ethics* adopted by reference in subsection 2 of NAC 653.090.

2. A person who holds a rural authorization or any registration issued pursuant to this chapter and chapter 653 of NRS shall perform his or her duties in accordance with the *Standards of Ethics* adopted by reference in subsection 2 of NAC 653.090.

(Added to NAC by Bd. of Health by R074-19, eff. 6-8-2020; A by R043-20, 12-29-2020)

Sec. 20. NAC 459.339 is hereby amended to read as follows:

NAC 459.339 Precautionary procedures: Conditions requiring individual monitoring of external and internal occupational doses. (NRS 459.030, 459.201) Each licensee and registrant shall monitor exposures from sources of radiation at levels sufficient to demonstrate compliance with the limits for occupational doses specified in NAC 459.010 to 459.950, inclusive. As a minimum:

1. Each licensee and registrant shall monitor occupational exposure to radiation from licensed and unlicensed sources under the control of the licensee or registrant and shall supply and require the use of personnel monitoring equipment by:

(a) Adults who are likely to receive in 1 year, from sources of radiation external to the body, a dose in excess of 10 percent of the limits specified in NAC 459.325;

(b) Minors who are likely to receive in 1 year, from sources of radiation external to the body, a deep-dose equivalent in excess of 0.1 rem (1 millisievert), a lens dose equivalent in excess of 0.15 rem (1.5 millisieverts), or a shallow-dose equivalent to the skin or extremities in excess of 0.5 rem (5 millisieverts);

(c) Women who have declared their pregnancy and are likely to receive, during the entire pregnancy, from sources of radiation external to the body, a deep-dose equivalent in excess of 0.1 rem (1 millisievert); and

(d) Any person entering a high or very high radiation area.

2. Each licensee shall monitor, to determine compliance with NAC 459.3275, the occupational intake of radioactive material by and assess the committed effective dose equivalent to:

(a) Adults who are likely to receive, in 1 year, an intake in excess of 10 percent of the applicable annual limit on intake in columns 1 and 2 of table I of appendix B;

(b) Minors who are likely to receive, in 1 year, a committed effective dose equivalent in excess of 0.1 rem (1 millisievert); and

(c) Women who have declared their pregnancy and are likely to receive, during the entire pregnancy, a committed effective dose equivalent in excess of 0.1 rem (1 millisievert).

3. Each registrant shall monitor occupational exposure to radiation and shall supply and require the use of personnel monitoring equipment when protective clothing or devices are worn on portions of the body to reduce radiation exposure and for persons who operate a fluoroscopy, mobile, portable, or transportable x-ray system unless otherwise approved by the Division.

Sec. 21. NAC 459.161 is hereby amended to read as follows:

NAC 459.161 **Fees; failure to submit fee; refund of fee paid in error. (**NRS 439.150**,** 439.200**,** 459.201**,** 653.460**)**

1. Except as otherwise provided in subsection 6, an application for the registration of a radiation machine submitted pursuant to NAC 459.154 must be accompanied by a nonrefundable fee for each X-ray tube, electron source or source of ionizing radiation which is installed in the radiation machine, as follows:

(a) Medical use, other than mammography, $~~[500]~~ *570.*

(b) Veterinary use, $~~[150]~~ *220.*

(c) Dental use, $~~[140]~~ 210.

(d) Industrial use *and Security Screening Systems*, $~~[200]~~ *270.*

(e) Academic use, $~~[150]~~ 220.

(f) Accelerator, $~~[550]~~ *620.*

(g) Service providers, installers, medical physicists, $210.

(h) Electronic Brachytherapy invasive (radiation applied under the skin or inside the body), $2,270.

(i) Electronic Brachytherapy noninvasive (radiation applied outside the body), $620.

(j) Radiation machine in storage or disassembled, $50.

(k) Medical remote CT equipment and systems, $570

(l) Temporary use less than 180 days for training or demonstration, $100

2. Except as otherwise provided in subsections 3 and 6, if the Division issues a registration certificate pursuant to NAC 459.156, the registrant must, for each year the certificate is valid, submit to the Division a nonrefundable renewal fee in an amount equal to the appropriate fee set forth in subsection 1.

3. The renewal fee must be electronically received by the Division not later than the date on which the registration expires unless, before that date, the registrant electronically submits to the Division pursuant to NAC 459.162 a notice that the registrant has transferred ownership of the radiation machine, placed the radiation machine in storage or disposed of the radiation machine. If the fee or notice is not electronically received by that date, the registrant must electronically submit to the Division in the form prescribed by the Division:

(a) An application for renewal of the registration;

(b) A fee in an amount that is equal to the appropriate fee set forth in subsection 1; and

(c) A fee for late payment of $56 per registration.

4. Except as otherwise provided in subsection 6, an application for the issuance of a duplicate registration certificate for a radiation machine or for the person installing, servicing or repairing radiation machines must be accompanied by a nonrefundable fee of $25.

5. Any application for registration or renewal of registration which is not accompanied by the appropriate fees will not be acted upon by the Division until such fees are paid.

6. If a payment was made in error, the Division will refund the fee collected pursuant to this section, after deducting an amount calculated to cover the administrative costs directly related to issuing the refund.

(Added to NAC by Bd. of Health, eff. 9-1-89; A 1-24-92; 11-1-95; R149-03, 12-3-2003; R085-06, 11-13-2006; R149-07, 1-30-2008; R144-13, 10-13-2016; R021-18, 12-30-2019; R043-20, 12-29-2020)

Sec. 22. NAC 457.295 is hereby amended to read as follows:

NAC 457.295 **Fees for certificates; refund of portion of fees paid in error. (**NRS 439.150**,** 457.065**,** 457.183**,** 457.184**)**

1. Except as otherwise provided in subsection 2, the Division shall charge and collect the following nonrefundable fees:

(a) For the issuance or renewal of a certificate for a machine, $~~[551]~~ *$635*.

(b) For the issuance or renewal of a mammographer's certificate, $~~[200]~~ *$240.*

(c) For the issuance of a duplicate mammographer's certificate for posting at multiple facilities for mammography pursuant to NAC 457.360, $25.

(d) For the issuance or renewal of a certificate to provide training to mammographers pursuant to NAC 457.357, ~~[$100]~~ *$170*.

(e) A fee for late payment of $56 per registration.

2. If a payment was made in error, the Division will refund the fee collected pursuant to subsection 1, after deducting an amount calculated to cover the administrative costs directly related to issuing the refund.

(Added to NAC by Bd. of Health, eff. 5-18-92; A 7-7-94; R148-03, 12-3-2003; R149-07, 1-30-2008; R144-13, 10-13-2016)

Sec. 23. NAC 459.5931 is hearby amended to read as follows:

NAC 459.5931 **Electronic brachytherapy devices: Fees (**NRS 439.150**,** 459.201**)**

1. A registrant shall pay an annual fee for the registration and inspection of an electronic brachytherapy device in the amount ~~[of]~~ *specified in NAC 459.161.* ~~[$4,400]~~

2. The registration fee is due within 30 days after the acquisition of the electronic brachytherapy system.

3. An annual renewal fee must be paid not later than the date on which the registration expires. If the fee is not received by that date, the registrant shall:

(a) Cease operating the radiation machine on that date; and

(b) Within 5 days after the registration expires, submit to the Division:

(1) An application for a renewal of the registration;

(2) The fee set forth in subsection 1; and

(3) A fee for late payment that is equal to twice the amount of the registration fee.

(Added to NAC by Bd. of Health by R185-08, eff. 5-7-2010)

Sec. 24. NAC 653.200 is hereby amended to read as follows:

NAC 653.200 **Payment; exception; refund. (**NRS 439.150**,** 439.200**,** 457.183**,** 653.460**)**

1. Except as otherwise provided in subsection 3:

(a) A person who is applying to the Division for the issuance or renewal of a license or a limited license pursuant to NRS 653.310 to 653.910, inclusive, a rural authorization or a registration to perform computed tomography or fluoroscopy pursuant to subsection 3 of NRS 653.620 shall pay the applicable fee for the issuance or renewal of a license, limited license, rural authorization or registration which is set forth in this section.

(b) Before issuing or renewing a license, limited license, rural authorization or registration to perform computed tomography or fluoroscopy, the Division shall charge and collect the issuance or renewal fee which is set forth in this section.

2. The Division shall charge and collect the following fees:

For the issuance *of a new or* renewal of a*n expired* license or a limited license pursuant to NRS 653.510 or 653.520	$200

For the renewal of a valid unexpired license or a limited license pursuant to NRS 653.510 or 653.520 .....$160

For the issuance *of a new* or renewal of a*n expired* license or a limited license pursuant to NRS 653.530 or 653.540..... $200

For the renewal of a valid unexpired license or a limited license pursuant to NRS 653.530 or 653.540 .....$160

For issuance of a provisional license..... $25
For issuance of a temporary student license pursuant to subsection 3 of NRS 653.610..... $25
For issuance of a duplicate license or a duplicate limited license..... $25
For the issuance or renewal of a rural authorization..... $50
For the issuance *of a new* or renewal of a*n expired* registration to perform computed tomography or fluoroscopy if the person performed computed tomography or fluoroscopy as part of his or her employment on January 1, 2020, as provided in subsection 3 of NRS 653.620..... $200
For the renewal of a valid unexpired registration to perform computed tomography or fluoroscopy if the person performed computed tomography or fluoroscopy as part of his or her employment on January 1, 2020, as provided in subsection 3 of NRS 653.620.....$160

Sec. 25. NAC 459.310 is hereby amended to read as follows:

NAC 459.310 **Fees of Division. (**NRS 439.150**,** 459.201**)** Except as otherwise provided in NAC 459.203, the Division will not issue a new specific license or standard general license or a renewed specific license or standard general license to a person until the appropriate nonrefundable fee for each address where licensed materials will be used or stored has been paid to the Division, as prescribed in the following table:

Material and use	Fee
1. Special nuclear material:	
(a) As sealed source	$~~[2,000]~~*2,070*
(b) In unsealed form	$~~[2,000]~~*2,070*
2. Source materials for other than milling operations	$~~[2,200]~~*2,270*
3. Naturally occurring radioactive material, discrete or diffuse	$~~[1,000]~~*1,070*
4. By-product material, artificially produced radioactive material and radium:	
(a) Manufacturing or distribution, or both	$~~[2,200]~~*2,270*
(b) Nuclear pharmacy	$~~[6,600]~~*6,670*
	$~~[5,500]~~
(c) Industrial radiography	*570*
(d) Category 1 (self-shielded) irradiator	$~~[1,650]~~*1,720*

Material and use	Fee
(e) Irradiator, other than a category 1 irradiator	$[1,650]*1,720*
(f) Academic, broad scope	$[8,800]*8,870*
(g) Academic, other research and development	$[1,320]*1,390*
(h) Service or laboratory	$[1,760]*1,830*
(i) Fixed gauge	$[1,100]*1,170*
(j) Gas chromatograph	$ [496] *566*
(k) In vitro	$ [105] *175*
(l) Portable gauge or X-ray fluorescence analyzer	$[1,320]*1,390*
(m) Therapeutic or diagnostic veterinary use	$[1,760]*1,830*
(n) Linear accelerators ([with operational energies c]*C*apable of exceeding 9 MeV) possession license for incidentally activated products	$[1,000]*1,070*
(o) Cyclotron used to manufacture PET radiochemicals	$[2,200]*2,270*
(p) All other uses of radioactive material except those set forth in subsections 5 to 9, inclusive	$[1,000]*1,070*
5. Well logging	$[3,300]*3,370*
6. Medical use of radioactive material:	
(a) Medical use	$[4,400]*4,470*
(b) General license for in vitro use	$ [125] *195*
7. Civil defense*, emergency response training*	$ [276] *346*
8. Registration of devices generally licensed pursuant to paragraph (a) of subsection 13 of NAC 459.218	$ [250] *320*

9. Water districts removal of Uranium from Drinking Water……$346

10. Medical use linear accelerators (with operational energies capable of exceeding 9 MeV) possession license for incidentally activate products ……$620

11. License for Uranium recovery, extraction, processing, or producing yellow cake for other than milling operations regulated by the NRC ……$8,870

12. Change of control for a radioactive materials license and review of documents that require legal reviews ……$500

13. Decommissioning plan reviews requiring notification to the public ……$1,000

[9]*14.* Any use of radioactive material by a person who holds a specific license issued by the Nuclear Regulatory Commission or any agreement state..... see appropriate fee category above

[Bd. of Health, Radiation Control Reg. § 3.1.1.1, eff. 10-15-81]—(NAC A 10-14-82; 4-26-84; 11-1-85; 3-9-87; 2-18-88; 12-15-88; 9-1-89; 1-31-90; 4-18-90; 8-1-91; 1-21-92; 1-24-92; 10-22-93; 11-1-95; R034-04, 4-7-2004; R085-06, 11-13-2006; R149-07, 1-30-2008; R185-08, 5-7-2010; R144-13, 10-13-2016)

Sec. 26. NAC 459.203 is hereby amended to read as follows:

NAC 459.203 Payment of fees for specific licenses. (NRS 459.201)

1. Except as otherwise provided in subsection 2, if the Division issues a specific license pursuant to NAC 459.196, the licensee must, for each year his or her specific license is valid, submit to the Division the appropriate fee set forth in NAC 459.310.

2. The fee must be received each year by the Division not later than the last day of the same month that is set forth as the date of expiration on the license. If the fee is not received by that date, the licensee must:

(a) Stop all operations involving radioactive materials and place all sources of radiation in storage until they can be transferred to persons authorized to receive them; or

(b) Submit to the Division within 5 days after the license expires an application for renewal of the license accompanied by a fee that is equal to ~~[twice]~~ *one and one fourth* the amount of the appropriate fee set forth in NAC 459.310.

(Added to NAC by Bd. of Health, eff. 9-1-89; A 1-24-92; R084-98, 1-26-99)