NOTICES OF FINAL RULEMAKING

This section of the *Arizona Administrative Register* contains Notices of Final Rulemaking. Final rules have been through the regular rulemaking process as defined in the Administrative Procedures Act. These rules were either approved by the Governor's Regulatory Review Council or the Attorney General's Office. Certificates of Approval are on file with the Office.

The final published notice includes a preamble and text of the rules as filed by the agency. Economic Impact Statements are not published.

The Office of the Secretary of State is the filing office and publisher of these rules. Questions about the interpretation of the final rules should be addressed to the agency that promulgated them. Refer to Item #5 to contact the person charged with the rulemaking. The codified version of these rules will be published in the *Arizona Administrative Code*.

NOTICE OF FINAL RULEMAKING

TITLE 4. PROFESSIONS AND OCCUPATIONS

CHAPTER 36. DEPARTMENT OF FIRE, BUILDING AND LIFE SAFETY

PREAMBLE

[R15-22]

1. Article, Part, and Section Affected (as applicable) — **Rulemaking Action**
R4-36-401 — Amend

2. Citations to the agency's statutory rulemaking authority to include the authorizing statute (general) and the implementing statute (specific):
Authorizing statute: A.R.S. § 36-1609(A)
Implementing statute: A.R.S. §§ 36-1601 through 32-1610

3. The effective date of the rule:
June 7, 2015

a. If the agency selected a date earlier than the 60 day effective date as specified in A.R.S. § 41-1032(A), include the earlier date and state the reason or reasons the agency selected the earlier effective date as provided in A.R.S. § 41-1032(A)(1) through (5):
Not applicable

b. If the agency selected a date later than the 60 day effective date as specified in A.R.S. § 41-1032(A), include the later date and state the reason or reasons the agency selected the later effective date as provided in A.R.S. § 41-1032(B):
Not applicable

4. Citations to all related notices published in the *Register* as specified in R1-4-409(A) that pertain to the record of the final rulemaking packager:
Notice of Rulemaking Docket Opening: 19 A.A.R. 2824, September 13, 2013
Notice of Proposed Rulemaking: 19 A.A.R. 3409, November 1, 2013
Notice of Supplemental Proposed Rulemaking: 20 A.A.R. 2233, August 22, 2014

5. The agency's contact person who can answer questions about the rulemaking:
Name: Frederick Durham
Address: 1110 W. Washington St., Suite 100
Phoenix, AZ 85007
Telephone: (602) 364-1080
Fax: (602) 364-1052
E-mail: fred.durham@dfbls.az.gov

6. An agency's justification and reason why a rule should be made, amended, repealed or renumbered, to include an explanation about the rulemaking:
During the first regular session, the 51st Legislature enacted HB 2461, updating the 2006 NFPA 1124 code to the 2013 edition as published in August, 2012. Therefore, the State Fire Marshal is promulgating rules to conform to the changes in A.R.S. § 36-1609 (A).

7. A reference to any study relevant to the rule that the agency reviewed and proposes either to rely on or not to rely on in its evaluation of or justification for the rule, where the public may obtain or review each study, all data underlying each study, and any analysis of each study and other supporting material:
None

8. A showing of good cause why the rulemaking is necessary to promote a statewide interest if the rulemaking will diminish a previous grant of authority of a political subdivision of this state:

Not Applicable

9. A summary of the economic, small business, and consumer impact:

These rules incorporate by reference the NFPA 1124 code from the 2006 edition to the 2013 edition as specified by the legislature, and will have minimal economic impact.

10. A description of any changes between the proposed rulemaking, to include supplemental notices, and the final rulemaking:

Minor formatting changes were made at the request of GRRC staff.

11. An agency's summary of the public or stakeholder comments made about the rulemaking and the agency response to the comments:

No comments have been received to date.

12. All agencies shall list other matters prescribed by statute applicable to the specific agency or to any specific rule or class of rules. Additionally, an agency subject to Council review under A.R.S. §§ 41-1052 and 41-1055 shall respond to the following questions:

None

a. Whether the rule requires a permit, whether a general permit is used and if not, the reasons why a general permit is not used:

Not Applicable

b. Whether a federal law is applicable to the subject of the rule, whether the rule is more stringent than federal law and if so, citation to the statutory authority to exceed the requirements of federal law:

The rule incorporates, but is not more stringent than, the following federal laws:

Child Safety Act of 1966

Title XI, "Regulation of Explosives, of the Crime Control Act of 1970," 1970.

Title 16, Code of Federal Regulations, Part 1500 and Part 1507, U.S. Consumer Product Safety Commission.

Title 18, United States Code, Chapter 40, "Importation, Manufacture, Distribution, and Storage of Explosive Materials," 1970

Title 27, Code of Federal Regulations, Part 555, Bureau of Alcohol, Tobacco, Firearms, and Explosives, U.S. Department of Justice

Title 29, code of Federal Regulations, Part 1910.1200, "Hazard Communication,: U.S. Department of Labor.

Title 49, Code of Federal Regulations, Part 100 to end, U.S. Department of Transportation.

c. Whether a person submitted an analysis to the agency that compares the rule's impact of the competitiveness of business in this state to the impact on business in other states:

No analysis comparing the rule's impact of competitiveness of business in the state to the impact on business in other states has been submitted as of the date of this Notice of Proposed Rulemaking.

13. A list of any incorporated by reference material as specified in A.R.S. § 41-1028 and its location in the rules:

NFPA 1124, Code for the Manufacture, Transportation, Storage, and Retail sales of Fireworks and Pyrotechnic Articles, 2013 Edition, National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471 or www.nfpa.org is incorporated at R4-36-401

14. Whether the rule was previously made, amended or repealed as an emergency rule. If so, cite the notice published in the *Register* as specified in R1-1-409(A). Also, the agency shall state where the test was changed between the emergency and the final rulemaking packages:

Not Applicable

15. The full text of the rules follows:

TITLE 4. PROFESSIONS AND OCCUPATIONS

CHAPTER 36. DEPARTMENT OF FIRE, BUILDING AND LIFE SAFETY

ARTICLE 4. PERMISSIBLE CONSUMER FIREWORKS

Section

ARTICLE 4. PERMISSIBLE CONSUMER FIREWORKS

R4-36-401. Material Incorporated by Reference

As required by A.R.S. § 36-1609(A), the State Fire Marshal incorporates by this reference NFPA 1124, Code for the Manufacture, Transportation, Storage and Retail Sales of Fireworks and Pyrotechnic Articles, ~~2006~~ 2013 edition as published August 29, 2012, which is published by the National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02169-7471 and is available from NFPA at www.nfpa.org and the Office of the State Fire Marshal. The incorporated material does not include a later amendment or edition but is modified as specified in R4-36-402.

NOTICE OF FINAL RULEMAKING

TITLE 12. NATURAL RESOURCES

CHAPTER 2. RADIATION REGULATORY AGENCY
MEDICAL RADIOLOGIC TECHNOLOGY BOARD OF EXAMINERS (MRTBE)

PREAMBLE

[R15-20]

1. Article, Part, and Section Affected (as applicable)	Rulemaking Action
R12-2-101	Amend
R12-2-102	Amend
R12-2-104	Repeal
R12-2-104	New Section
Article 2	Amend
R12-2-201	Repeal
R12-2-201	New Section
R12-2-202	Repeal
R12-2-202	New Section
R12-2-203	Repeal
R12-2-203	New Section
R12-2-204	Repeal
R12-2-204	New Section
R12-2-205	Repeal
R12-2-205	New Section
R12-2-206	Repeal
R12-2-206	New Section
R12-2-207	Repeal
R12-2-207	New Section
R12-2-208	New Section
Article 3	Amend
R12-2-301	Repeal
R12-2-301	New Section
R12-2-302	New Section
R12-2-303	New Section
R12-2-304	New Section
R12-2-305	New Section
Article 4	Amend
R12-2-401	Repeal
R12-2-401	New Section
R12-2-402	Repeal
R12-2-402	New Section
R12-2-403	Repeal
R12-2-403	New Section
R12-2-404	Repeal
R12-2-404	New Section
R12-2-405	Repeal
R12-2-405	New Section
R12-2-406	Repeal
R12-2-406	New Section
Article 5	Repeal

R12-2-501	Repeal
R12-2-502	Repeal
R12-2-503	Repeal
R12-2-504	Repeal
R12-2-505	Repeal
R12-2-506	Repeal
Article 6	Repeal
R12-2-601	Repeal
R12-2-602	Repeal
R12-2-603	Repeal
R12-2-604	Repeal
R12-2-605	Repeal

2. Citations to the agency's statutory rulemaking authority to include the authorizing statute (general) and the implementing statute (specific):

Authorizing statutes: A.R.S. §§ 30-652, 30-654(B), 32-2803, 32-2815, 32-2819(B)
Implementing statutes: A.R.S. §§ 33-2801, 32-2804, 32-2811, 32-2812, 32-2813, 32-2814, 32-2816, 32-2817, 32-2818, 32-2819, 32-2821, 28-2822, 32-2823, 32-2824; 32-2825, and 32-2841.

3. The effective date of the rule:

June 6, 2015

4. Citations to all related notices published in the *Register* as specified in R1-1-409(A) that pertain to the record of the proposed rule:

Notice of Rulemaking Docket Opening: 20 A.A.R. 2045, August 1, 2014.
Notice of Proposed Rulemaking: 20 A.A.R. 3024, November 21, 2014.

5. The agency's contact person who can answer questions about the rulemaking:

Name: Jerry W. Perkins
Address: Radiation Regulatory Agency
4814 S. 40th St.
Phoenix, AZ 85040
Telephone: (602) 255-4845
Fax: (602) 437-0705
E-mail: jperkins@azrra.gov
Website: www.azrra.gov

6. An agency's justification and reason why a rule should be made, amended, repealed or renumbered, to include an explanation about the rulemaking:

This rulemaking package amends and adds several rules to ensure that the Medical Radiologic Technology Board of Examiners (MRTBE) is able to address recent safety issues related to scope of practice, revised certifications to match nationally recognized professions, and rules to meet the statutory requirements. A.R.S. § 32- 2819 was created by Session laws 2008, Chapter 228, § 3. This statute created the radiologist assistant certification to provide Arizona with additional health professional support in radiology similar in scope to other states.

7. A reference to any study relevant to the rule that the agency reviewed and proposes either to rely on or not to rely on in its evaluation of or justification for the rule, where the public may obtain or review each study, all data underlying each study, and any analysis of each study and other supporting material:

None

8. A showing of good cause why the rulemaking is necessary to promote a statewide interest if the rulemaking will diminish a previous grant of authority of a political subdivision of this state:

Not applicable

9. A summary of the economic, small business, and consumer impact:

There is little or minimal economic impact from any of the rules in this rulemaking. Currently, all certified technologists pay a fee which covers the administrative cost and examination if needed for these individuals. This package has no fee increase or new requirements that would markedly change the way businesses operate with radiation safety concerns in mind. The amendments in this rulemaking address recent safety issues related to scope of practice, revised certifications to match nationally recognized professions, and rules to meet the statutory requirements. A.R.S. § 32- 2819 was created by Session laws 2008, Chapter 228, § 3. This statute created the radiologist assistant certification to provide Arizona with additional health professional support in radiology similar in scope to other states.

10. A description of any changes between the proposed rulemaking, to include supplemental notices, and the final rulemaking:

Agency staff recommended that the heading and the verbiage in R12-2-207 and R12-2-207(B) be edited to remove the reference to Magnetic Resonance as intended prior to publishing the proposed rules. This edit was done upon approval of the MRTBE as the intent of the rulemaking was not to create a nonionizing certification under Chapter 2 of the rules of the Agency. Minor edits for clarification that were not substantial were suggested and made in cooperation with GRRC staff. In addition the term technology was replaced by the term technologist in several places to ensure that individuals that are under the jurisdiction of MRTBE are being held to scopes of practice and other requirements and that the intention is not to have the machines that are already regulated in A.C.C. Title 12, Chapter 1 follow scope of practice standards.

11. An agency's summary of the public or stakeholder comments made about the rulemaking and the agencies response to the comments:

No members of the public appeared or made comments related to the rulemaking package before or during the hearing. The staff comment to make the minor clarification correction to R12-1-207 was discussed and the rulemaking package that was published with the recommended edits was adopted by the Medical Radiologic Technology Board of Examiners unanimously.

12. All agencies shall list other matters prescribed by statute applicable to the specific agency or to any specific rule or class of rules. Additionally, an agency subject to Council review under A.R.S. §§ 41-1052 and 41-1055 shall respond to the following questions:

a. Whether the rule requires a permit, whether a general permit is used and if not, the reasons why a general permit is not used:

To the extent that the rules require issuance of a regulatory certificate, approval, or permit, the authorization is arguably a "general permit" under A.R.S. § 41-1001(11) and therefore complies with A.R.S. § 41-1037.

b. Whether a federal law is applicable to the subject of the rule, whether the rule is more stringent than federal law and if so, citation to the statutory authority to exceed the requirements of federal law:

The rule amendments are compatible with existing federal regulations and are not more stringent in sections that have a federal equivalent. Currently the regulation of certified technologists is conducted at the state level as there is no federal regulatory body. Professional registers exist for the accreditation of training and federal regulations for training exist in 21 CFR 900.12 for technologists that perform screening authorized under the Mammography Quality Standards Act (MQSA) of 1992. Medicare Improvements for Patients and Providers Act (MIPPA) of 2008 also requires accreditation from designated bodies and these bodies use quality standards that rely upon the professional scope of practice of technologists from national organizations.

c. Whether a person submitted an analysis to the agency that compares the rule's impact of the competitiveness of business in this state to the impact on business in other states:

No analysis has been submitted as the regulated community must be in compliance with either federal training regulations if accepting Medicare insurance, or if certified as a MQSA mammography facility.

13. A list of any incorporated by reference material as specified in A.R.S. § 41-1028 and its location in the rules:

Rule	Incorporated Material
R12-2-401(A)	2013 American Society of Radiologic Technologists: Radiography Practice Standards
R12-2-401(B)	2012 American Society of Radiologic Technologists: Mammography Practice Standards
R12-2-401(C)	2011 American Society of Radiologic Technologists: Radiation Therapy Practice Standards
R12-2-402(D)	2013 American Society of Radiologic Technologists: Limited X-Ray Machine Operator Practice Standards
R12-2-403	2012 Society of Nuclear Medicine and Molecular Imaging's Nuclear Medicine Technologist Scope of Practice
R12-2-404	2011 American Society of Radiologic Technologists: Bone Densitometry Practice Standards
R12-2-405	2013 American Society of Radiologic Technologists: Computed Tomography Practice Standards
R12-2-406	2011 American Society of Radiologic Technologists: Radiologist Assistant Practice Standards

14. Whether the rule was previously made, amended or repealed as an emergency rule. If so, cite the notice published in the *Register* as specified in R1-1-409(A). Also, the agency shall state where the text was changed between the emergency and the final rulemaking packages:

Not applicable

15. The full text of the rules follows:

TITLE 12. NATURAL RESOURCES

CHAPTER 2. RADIATION REGULATORY AGENCY
MEDICAL RADIOLOGIC TECHNOLOGY BOARD OF EXAMINERS

ARTICLE 1. GENERAL PROVISIONS

Section
R12-2-101. Definitions
R12-2-102. Certificate Granting Bodies
R12-2-104. ~~Approval of Radiologic Technology Schools~~ Licensing Time-frames

ARTICLE 2. ~~APPLICATION AND CERTIFICATION OF TECHNOLOGISTS~~ SCHOOLS AND TRAINING APROVALS AND REQUIREMENTS OF RADIOLOGIC TECHNOLOGY

Section
R12-2-201. ~~Applications~~ Radiologic Technology and Radiation Therapy Technology
R12-2-202. ~~Qualifications~~ Practical Radiologic Technology
R12-2-203. ~~Examination Failures~~ Practical Radiologic Technology in Bone Density and Podiatry
R12-2-204. ~~Prohibitions and Limitations~~ Nuclear Medicine Technology
R12-2-205. ~~Certificate Expiration~~ Bone Densitometry Technology
R12-2-206. ~~Fees~~ Mammography Technology
R12-2-207. ~~Change of Name or Address; Duplicate Certificate~~ Computed Tomography Technology
R12-2-208. Radiologist Assistant

ARTICLE 3. ~~LICENSING TIME-FRAMES~~ APPLICATION AND CERTIFICATION OF RADIOLOGIC TECHNOLOGISTS AND RADIOLOGIST ASSISTANTS

Section
R12-2-301. ~~Licensing Time-frames~~ Applications
R12-2-302. ~~Repealed~~ Qualifications
R12-2-303. Fees
R12-2-304. Renewals
R12-2-305. Display of Certificate

ARTICLE 4. ~~SCHOOLS OF PRACTICAL RADIOLOGIC TECHNOLOGY~~ SCOPE OF PRACTICE

Section
R12-2-401. ~~Course Time-frames~~ Radiologic Technology, Mammography and Radiation Therapy Technology
R12-2-402. ~~Clinical Training~~ Practical Radiologic Technology
R12-2-403. ~~Equipment and Facilities~~ Nuclear Medicine Technology
R12-2-404. ~~Program Administration~~ Bone Densitometry Technology
R12-2-405. ~~Didactic Training~~ Computed Tomography Technology
R12-2-406. ~~School Approval~~ Radiologist Assistant

ARTICLE 5. ~~NUCLEAR MEDICINE TECHNOLOGIST~~ Repealed

Section
R12-2-501. ~~Definitions~~ Repealed
R12-2-502. ~~Use of Title~~ Repealed
R12-2-503. ~~Display of Certificate~~ Repealed
R12-2-504. ~~Application for Approval of Nuclear Medicine School~~ Repealed
R12-2-505. ~~Standards for Nuclear Medicine Technology Schools; Approved Nuclear Medicine Technology Schools~~ Repealed
R12-2-506. ~~Certification and Grandfather Provisions~~ Repealed

ARTICLE 6. ~~PRACTICAL TECHNOLOGIST IN BONE DENSITOMETRY~~ Repealed

Section
R12-2-601. ~~Definitions~~ Repealed
R12-2-602. ~~Recognized Certificate-granting Bodies~~ Repealed
R12-2-603. ~~Limitation~~ Repealed
R12-2-604. ~~Education~~ Repealed
R12-2-605. ~~Qualified Instructors~~ Repealed

ARTICLE 1. GENERAL PROVISIONS

R12-2-101. Definitions

The definitions in A.R.S. § 32-2801 apply to this Article. In addition, the terms in this Chapter have the following meaning, unless the context otherwise requires:

"ARRT" means the American Registry of Radiologic Technologists.

"ASCP" means the American Society of Clinical Pathology.

"ASRT" means the American Society of Radiologic Technologists.

"ACR" means the American College of Radiology.

"Assistance" means any activity except the following: Positioning of the patient and x-ray tube, selecting technical settings, and exposing a patient to x-rays.

"Authorized user" means a physician licensed in Arizona to practice medicine and who is identified as:

An authorized user on an Agency, Nuclear Regulatory Commission (NRC), or Agreement State license that authorizes the specified medical use: or

A user in a medical use board scope program, licensed by the Agency, NRC, or Agreement State to select its own authorized users.

"Board" means the Medical Radiologic Technology Board of Examiners.

"Bone densitometry radiologic technologist" means a person who holds a certificate to apply ionizing radiation to a person's hips, spine, and extremities through the use of a bone density machine.

"Brachytherapy" means a method of radiation therapy in which a sealed source or group of sealed sources is used to deliver beta or gamma radiation at a distance of up to a few centimeters, by surface, intracavitary, intraluminal, or interstitial application.

"CBRPA" means the Certification Board for Radiology Practitioner Assistants.

"Certification" means the process by which the Board grants permission and recognition to an individual to engage in radiologic technology upon finding the individual has met the qualifications specified by statute and rule.

"Chest radiography" means radiography performed to visualize the heart and lungs only.

"Computed tomography technologist" means a person who applies ionizing radiation to a human using a computed tomography machine for diagnostic purposes.

"Contrast media" means material intentionally administered to the human body to define a part or parts that are not normally radiographically visible.

"Diagnostic application" means the use of ionizing radiation for diagnostic purposes, including but not limited to, measuring and positioning patients or human tissue, selecting technical settings on x-ray equipment, and making x-ray exposures.

"Diagnostic dosage" means a prescribed amount of a radionuclide or radiopharmaceutical, which is used for a diagnostic purpose.

"Direct supervision" means an authorized user or licensed practitioner who is: personally aware of, and maintains independent professional responsibility for, the procedure intended for a given patient, present in the facility; and available for immediate assistance.

"Extremity" means the shoulder girdle to the phalanges and the lower two-thirds of the femur to the phalanges.

"Electronic brachytherapy" means a method of radiation therapy where an electrically generated source of ionizing radiation is placed in or near the tumor or target tissue to deliver therapeutic radiation dosage.

"Foot" means the distal part of the human leg upon which an individual stands and walks.

"General supervision" means guidance, direction, and instruction by an authorized user or licensed practitioner who is available, but not necessarily within the supervised individual's place of employment.

"Healing arts radiography" means the application of radiation to human patients for diagnostic or therapeutic purposes by a licensed practitioner or a person certified in accordance with R12-1-603(B)(1). Healing arts radiography includes:

Positioning the x-ray beam with respect to the patient;

Anatomical positioning of the patient;

Selecting exposure factors, dosage of radiopharmaceutical and agent, therapeutic dose; and

Initiating or producing the exposure.

"Immediate supervision" means in-room presence for instruction, direction, and guidance by an authorized user or licensed practitioner who is available to assume control of the given procedure.

"ISCD" means the International Society for Clinical Densitometry.

"Licensed practitioner" means a person licensed or otherwise authorized by law to practice medicine, dentistry, osteopathy, chiropractic, podiatry, or naturopathy in this state.

"Medical event" means:

The administration of a radiopharmaceutical or the radiation from a sealed source, administered for therapy purposes and involving:

The wrong radiopharmaceutical or sealed source;

The wrong patient;

The wrong route of administration; or

A dosage that differs from the prescribed dosage by 20%; or

The administration of a diagnostic dosage of a radiopharmaceutical involving:

The wrong patient;

The wrong radiopharmaceutical;

The wrong route of administration; or

A dosage to an individual that exceeds 5 rems (.05Gy) effective dose equivalent or 50 rems (0.5Gy) dosage equivalent to any individual organ; or

A therapeutic radiation dose from a sealed source such that errors in the source calibration, time of exposure, and treatment geometry result in a calculated total treatment dose differing from the final, prescribed total treatment dose by more than 10%.

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

"NMTCB" means the Nuclear Medicine Technology Certification Board.

"Nuclear medicine technologist" means a person who uses radiopharmaceutical agents on humans for diagnostic or therapeutic purposes. A.R.S. § 32-2815.

"Practical radiologic technologist" for purposes of this Chapter is equivalent to "practical technologist in radiology"; however, this title is further defined as a person authorized to use radiography, not ~~including~~ fluoroscopy, or ~~and~~ the use of contrast media, and limited to the chest and extremities, on humans, at the direction of a licensed practitioner; unless

The person is certified as a practical radiologic technologist in podiatry, in which case the person is limited to radiography of the lower leg, ankle and foot ~~and leg~~; or

The person is certified as an "unlimited" practical radiologic technologist, in which case the person is not limited to radiography of the body areas in this definition~~.~~; or

The person is certified as a practical technologist in bone densitometry, in which case the person is limited to performing bone mineral densitometry of the distal extremities only.

~~"Practical radiologic technologist in podiatry" for purposes of this Chapter is equivalent to "practical technologist in podiatry."~~

~~"Practical radiologic technology" means radiography limited to the chest or extremities and not including the use of fluoroscopy and the use of contrast media. For purposes of this Chapter "practical radiologic technology" is equivalent to "practical technology in radiology."~~

"Qualified instructor" means a person who is recognized by the Board, provides education or training in the application of radiation to humans for diagnostic or therapeutic purposes, and has a relevant certification from the Board or a recognized certificate-granting body.

"Radiograph" means the record of images which represents anatomical details of the part radiographically examined and is formed by the differential absorption of ionizing radiation within the part.

"Radiography" means the use of ionizing radiation in making radiographs.

"Radiologist assistant" means a person who performs independent advanced procedures in medical imaging and interventional radiology under the guidance, direction, supervision and discretion of a licensed practitioner of medicine or osteopathy specializing in radiology (Radiologist).

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

"Radiopharmaceutical" means any drug that exhibits spontaneous disintegration of unstable nuclei with the emission of nuclear particles or photons and includes any nonradioactive reagent kit or nuclide generator that is intended to be used in the preparation of the drug.

"Radiopharmaceutical agent" means a radionuclide or radionuclide compound designed and prepared for administration to human beings.

"Special permit" means a certificate issued by the Board exempting an individual from the specific provisions of A.R.S. §§ 32-2802 through 32-2813.

"Specific direction" means the application of x-radiation to a specific area of the human body for diagnostic purposes while under the specific supervision of a licensed practitioner.

"Temporary certificate" means a certificate issued by the Board to any person who has completed a training program approved by the Board and whose certification is pending.

"Therapeutic application" means the use of ionizing radiation including, but not limited to, setting up the treatment position, delivering the required dose prescribed by the physician, certifying the record of the technical details of the treatment, selecting the required filter and treatment distance, making beam directional shells and molds, using diagnostic x-ray equipment for tumor localization, assisting the physicist in calibration procedure, and assisting in treatment planning procedures. Therapeutic application does not include taking x-rays for diagnostic purposes.

"Therapeutic purpose" means the use of ~~x-~~radiation to treat human disease.

"Therapeutic Technologist" means a person who uses radiation on humans for therapeutic purposes.

"X-radiation" means penetrating electromagnetic radiation with wave-lengths shorter than those of visible light that is usually produced by bombarding a metallic target with fast electrons in a high vacuum, creating photons that originate from the extranuclear part of the atom.

R12-2-102. Certificate Granting Bodies

For the purpose of A.R.S. § 32-2812(C), the Board shall maintain a list of approved certificate granting bodies in all fields and specialties ~~the field~~ of Radiologic Technology.

R12-2-104. ~~Approval of Radiologic Technology Schools~~ Licensing Time-frames

A. ~~An applicant seeking approval for a proposed radiologic technology school shall apply by letter and shall address all of the concerns listed for school approval in A.R.S. § 32-2804.~~ Within 30 days of receiving an initial or a renewal certificate or permit application package, the Board shall notify the applicant of any deficiencies found in the package. The Board shall provide a written comprehensive list of the deficiencies to the applicant. The 30-day time-frame for determining administrative completeness is suspended from the date the deficiency notice is mailed until the date that the Board receives all missing information from the applicant. If an applicant fails to supply the missing information or to request an extension of response time within 90 days from the date of the deficiency notice, the Board shall close the application file and require a new application with all appropriate fees.

B. ~~The Board shall review and approve a school application according to the schedule in R12-2-301.~~ The Board shall render a certification or permit decision within 30 days after completion of the administrative completeness review time-frame, unless an extension of 15 days is agreed to by the applicant. If deficiencies are found in the application package, the Board shall make a written comprehensive request for additional information from the applicant. The 30-day time-frame for substantive review is suspended from the date the request is mailed until the date that the Board receives additional information from the applicant. If an applicant fails to respond to the written request or to request an extension of response time within 90 days of the notice, the Board shall close the application file and require a new application with all appropriate fees.

1. If an applicant is found to be ineligible, the Board shall provide the applicant a written notice of denial explaining:
   a. The reason for the denial with citation to supporting statutes or rules;
   b. The applicant's right to seek an appeal of the denial; and
   c. The time periods for appealing the denial.
2. If an applicant is found to be eligible, the applicant shall be notified and provided a certificate or permit number.

C. ~~The Board shall maintain a list of radiologic technology schools approved according to A.R.S. § 32-2804.~~ Within 60 days of receiving a school application package, the Board shall notify the applicant of any deficiencies found in the package. The Board shall provide a written comprehensive list of the deficiencies to the applicant. The 60-day time-frame for determining administrative completeness is suspended from the date the deficiency notice is mailed until the date that the Board receives all of the missing information from the applicant. If an applicant fails to supply the missing information or to request an extension of response time within 90 days from the date of the deficiency notice, the Board shall close the application file and require a new application with all appropriate fees.

D. The Board shall render a decision regarding school approval within 60 days after the completion of the administrative completeness review time-frame, unless an extension of 30 days is agreed to by the applicant. If deficiencies are found in the application package, the Board shall make a written comprehensive request for additional information from the applicant. The 60-day time-frame for substantive review is suspended from the date the request is mailed until the date that the Board receives all additional information from the applicant. If an applicant fails to respond to the written request or to request an extension of response time within 90 days of the notice, the Board shall close the application file and require a new application with all appropriate fees.

1. If an applicant is found to be ineligible, the Board shall provide the applicant a written notice of denial explaining:
   a. The reason for the denial with citation to supporting statutes or rules;
   b. The applicant's right to seek an appeal of the denial; and
   c. The time periods for appealing the denial.
2. If an applicant is found to be eligible, the applicant shall be notified and the application shall be provided to the Board for approval.

E. For the purposes of A.R.S. Title 41, Chapter 6, Article 7.1, the Board establishes the following time-frames in days: Certification, Permit, and School Approval Time-frames

Type of Application	*Administrative Completeness Review Time*	*Substantive Review Time-frame*	*Overall Time-frame*
Certification or Permit	30	30	60
School Approval	60	60	120

ARTICLE 2. ~~APPLICATION AND CERTIFICATION OF TECHNOLOGISTS~~ SCHOOLS AND TRAINING APPROVALS AND REQUIREMENTS OF RADIOLOGIC TECHNOLOGY

R12-2-201. ~~Applications~~ Radiologic Technology and Radiation Therapy Technology

~~With respect to the application procedure outlined in A.R.S. § 32-2812(A) and (B):~~

~~1. The Board accepts a passing score on the high school equivalency test (G.E.D.) as evidence of successful completion of high school or its equivalent.~~
~~2. On a notarized Board application form for certification, or as an attachment to a completed and notarized Board application, an applicant shall provide the following information:~~
~~a. Copy of current American Registry of Radiologic Technologists (ARRT) wallet card;~~
~~b. Copy of any degree, diploma, or certificate from an approved radiologic or practical radiologic technology school;~~
~~c. Photo;~~
~~d. Certification fee;~~
~~e. Name, address, and telephone number;~~
~~f. Birth date, sex, and social security number;~~
~~g. Purpose of application and current licensure or certificate number, if applicable;~~
~~h. Employment information for the last three years;~~
~~i. Education information;~~
~~j. Criminal, moral, license/certification history; and~~
~~k. Signature and date of signature of the applicant~~

A. An applicant seeking approval for a proposed radiologic technology school or radiation therapy school shall apply by letter and shall address all of the criteria listed for school approval in A.R.S. § 32-2804.
B. The Board shall review and approve or deny a school application according to the schedule in R12-2-104.
C. The Board shall maintain a list of radiologic and radiation therapy technology schools approved according to A.R.S. § 32-2804.
D. Upon completion of training, an applicant must either pass a Board-approved examination with a minimum score of 70% or in lieu of its own examination, the Board shall accept a valid certificate issued on the basis of an examination by a certificate-granting body recognized by the Board.
E. A radiologic technologist or radiation therapy technologist shall have obtained a minimum of 24 hours continuing education over the previous two years.

R12-2-202. ~~Qualifications~~ Practical Radiologic Technology

A. ~~The Board shall issue a radiologic technologist certificate if the applicant meets the qualifications for a radiologic technologist certificate prescribed in A.R.S. § 32-2812 or the qualifications for a temporary radiologic technologist certificate prescribed in A.R.S. § 32-2814.~~ Course Time-frame: The administrator of a school of practical radiologic technology shall ensure that the time-frame for the course of study shall not be less than six months or more than 24 months for completion of 210 hours of didactic training and 480 hours clinical training.
B. ~~The Board shall issue a practical technologist in radiology certificate if the applicant has passed an examination approved by the Board and has completed a Board-approved program of limited practical technology in radiology. An applicant shall be notified by the Board of the time and place of the next examination, if the applicant fails the examination.~~ Clinical Training: A school may provide clinical training in one general facility or two specific clinical facilities.
1. "General clinical facility" means a hospital, clinic, or doctor's office that provides clinical training in both chest and extremity radiography. The clinical training shall consist of a minimum of 12 examinations per day per student, of which 30 percent are chest examinations and 70 percent are extremity examinations.
2. "Specific clinical facility" means a hospital, clinic, or doctor's office that provides clinical training in chest or extremity radiography. A specific clinical training program shall include a minimum of 12 examinations per day per student. The training period at a specific clinical facility devoted to chest examinations shall not exceed three weeks. The training period at a specific clinical facility devoted to extremity examinations shall not exceed nine weeks.

C. ~~An applicant or an inactive certificate holder who has not practiced radiologic technology during the prior three years shall pass an examination approved by the Board before certification.~~ Equipment and Facilities:
1. A school is not required to have an energized laboratory and equipment, but if utilized, the laboratory and equipment shall conform to Arizona Radiation Regulatory Agency rules in 12 A.C.C 1.
2. A school shall maintain a library of, or electronic access to current books, journals, and other reference material commonly used in and related to the curriculum and profession.

D. Program Administration: One or more individuals may be responsible for the school's administrative, supervisory, or educational duties. However, these responsibilities shall be clearly stated in the school's administrative policies.
1. The Program Director shall be responsible for the radiography educational program, and be one of the following:
a. An Arizona certified radiologic technologist with a minimum of two years of post-certification experience and two years of teaching experience in a diagnostic radiologic technology program or equivalent, as determined by the Board, or its duly authorized representative;
b. A radiologic physicist certified by the American College of Radiology or equivalent, as determined by the Board, or its duly authorized representative, with at least two years of experience as an instructor in an academic course of study in diagnostic radiologic technology or equivalent, as determined by the Board, or its duly authorized representative; or
c. A radiologist certified by the American College of Radiology, or equivalent, as determined by the Board, or its duly authorized representative, with at least two years of experience as a lecturer in an academic course of

study in diagnostic radiologic technology or equivalent, as determined by the Board, or its duly authorized representative.

2. An instructor shall be qualified through academic preparation and experience to teach the assigned subjects, as determined by the Board, or its duly authorized representative.
   a. An instructor who is an Arizona certified radiologic technologist shall teach the following subjects:
      i. Adult and pediatric positioning (radiologic),
      ii. Physics and technical factors,
      iii. Film processing,
      iv. Quality control,
      v. Film critique,
      vi. Survey of human disease, and
      vii. Radiation protection.
   b. A physician or other health professional shall teach a survey of human disease and a radiologic physicist or a radiologist shall teach radiation protection, quality control, and physics.
3. Clinical supervision shall be provided by an individual who is:
   a. An Arizona certified radiologic technologist with a minimum of two years of post-certification experience; or
   b. An Arizona certified practical technologist in radiology with a minimum of three years of post-certification experience; and
   c. Available during the training period in the clinical area when radiography procedures are being performed.

E. Didactic Training: a school shall provide the following minimum hours in each of the following subjects:
1. Professional ethics (five hours).
   a. Definition of ethics, nature of ethics, and value of ethics to the practical technologist, patient, and medical profession;
   b. Professional secrecy and confidential knowledge regarding patients, physicians, and institutions;
   c. Practical technologist relationship to patients, other technologists, radiologists, attending physicians, and other members of the medical staff.
2. Office procedures (five hours).
   a. An instructor shall stress office professionalism, including action, appearance, and speech. Special attention shall be given to handling telephone conversations so that essential information is obtained when scheduling radiography;
   b. Legal and ethical problems involving loan of radiographs, ordering examinations, ownership of equipment, visitors in the radiographic rooms, records, and use of equipment.
3. Anatomy, physiology, and medical terminology.
4. Adult and pediatric positioning (30 hours).
   a. General positioning nomenclature and terminology. An instructor shall familiarize each student with the terms: anterior, posterior, lateral, oblique, caudal, cephalad, tangential, supine, prone, upright, medial, flexion, extension, adduct, abduce and other terms used to correctly position patients for radiography;
   b. Procedure comprehension. Under classroom conditions, an instructor shall train each student so that the student is able to describe the anatomy visualized; describe the positions used, in terms of direction of the central ray and anatomical area of interest; name the size of film ordinarily used; describe patient preparation, if necessary; describe the special procedures applicable to radiographing specific regions of the body; identify radiographs of the basic radiographic positions; label the anatomic parts; explain variations in technical factors required for differences in patient habitus and similar anatomical areas of interest having different density and radiographic obstructions such as casts; explain how to avoid degradation of image quality from patient motion; and; describe variations in tube-film placement required to compensate for a patient's immobility.
   c. Procedure practice. In a laboratory situation, using a patient or a phantom, an instructor shall train each student so that the student is able to position the correct anatomical part, stabilizing or immobilizing the patient or phantom as needed; select the correct film size; align the x-ray tube to the anatomical part and film; and adjust the cone or collimator to the appropriate field size.
   d. Radiography of pediatric and geriatric patients. An instructor shall familiarize a student with the techniques necessary to sympathize and empathize with patients. In doing so, the instructor shall train each student to gain the patient's cooperation in obtaining a useful radiograph. Also, the instructor shall train each student to recognize the maneuverability of patients of all ages; devise methodologies necessary to obtain a satisfactory radiograph; relate with the patient in a manner which will not adversely affect a patient's psychological state; and provide comfort measures that will aid in obtaining high quality radiographs.
5. Physics and technical factors (50 hours).
   a. The structure of matter: the atom, elements, compounds, substances, mixtures, and modes of ionization.
   b. Production and properties of x-rays: nature of electromagnetic radiation, production of x-rays, interactions of x-ray with matter, detection of ionizing radiation, and specification of the x-ray beam.

c. X-ray tubes: early x-ray tubes, modern x-ray tubes, stationary anode tubes, rotating anode tubes, types of tube cooling, tube housings and beam restricting systems, x-ray tube characteristics, focal spots, x-ray tube rating charts, and tube cooling charts.
d. Radiographic algorithms of a latent image and the prime factors of radiography (milliamperage, time, distance, and kilovoltage).
e. Factors affecting radiographic quality (density, detail, contrast distortion, and magnification) as related to chest and extremities.
f. Calibration, heat loading of x-ray tubes, conditions influencing choice of exposure factors, filters, grids, cones, cylinders, diaphragms, calipers, cassettes, film holders, technique charts, and identification system.
g. Discussions, problems, and experiments related to time, source image receptor distance, milliamperage, peak kilovoltage, and the relationships that can be established with combinations of each of these parameters, shall be provided to each student.

6. Processing-Digital Image Formation (15 hours).
a. Darkroom construction, equipment, and arrangement; illumination and test for illumination, and x-ray film: handling, developing, rinsing, fixing, washing, and drying.
b. Preparation of solutions, types, care of processing apparatus, automatic processing, reduction of overexposed and underexposed radiographs, and film artifacts and their uses.
c. Digital Image Processing

7. Quality control (10 hours). An instructor shall train each student in the following subject areas: evaluation of film system procedures, radiographic machines, image quality, film screens, film holders, and grids.
8. Film and Image critique (20 hours).
a. Patient's relevant clinical data: reasons for radiographic examination (pathology) and assessment of the patient during the radiographic examination.
b. Technique employed: technical factors and source image receptor distance.
c. Collimation and shielding: film size, field size, shielding, and markers.
d. Positioning: basic positioning and devices.
e. Anatomy: radiographic anatomy and anatomical anomalies.
f. Radiographic quality: density, contrast, resolution, distortion and magnification, fog, grids, film screens, film processing, and image artifacts.

9. Survey of diseases (five hours). Disease and injury encountered in the radiography of chest and extremities.
10. Nursing procedures (10 hours). An instructor shall train each student in patient care, including emergency procedures.
11. Radiation protection (30 hours).
a. Atomic structure, properties of radiation, modes of x-ray production, x-ray interaction with matter (absorption processes), units of radiation exposure and dosage, personal dosimetry and survey instruments, mechanisms of biological damage (stochastic and nonstochastic effects).
b. History and basic principles of radiation protection, standards for protection against ionizing radiation, including the principles of "ALARA" (As Low As Reasonably Achievable); methods for reducing exposure to personnel and patients, including the correct use of collimator, filtration, proper kilovoltage and milliamperage, time settings; formulation of x-ray exposure techniques; and special radiation protection measures for x-ray examinations. An instructor shall demonstrate the importance of time, distance and shielding, and scattering of x-rays.

F. School Approval:
1. An applicant seeking to open a Practical Radiologic Technology School shall apply to the Board by letter and shall address all of the criteria in R12-2-202.
2. The Board shall review a school application in a timely manner as required in R12-2-104 and approve or deny the application.
3. The Board shall maintain a list of approved schools.

G. Upon completion of training, an applicant must pass a Board-approved examination with a minimum score of 67%.
H. A practical technologist in radiology shall have obtained a minimum of six hours continuing education over the previous two years.

R12-2-203. ~~Examination Failures~~ Practical Technologist in Bone Densitometry and Podiatry

~~Upon failing the certification exam a third time, a radiologic or a practical radiologic technologist applicant shall repeat the entire course of training prescribed for the specified certificate.~~

A. Practical technologist in bone densitometry:
1. An applicant shall provide evidence of having completed a total of 80 hours of instruction from qualified instructors in the following subjects: radiation safety, conventions in densitometry, densitometry techniques, anatomy, precision and accuracy, quality control, osteoporosis overview, and understanding data.
2. An applicant must pass a Board-approved Limited Bone Density examination with a minimum core of 70%.

B. Practical technologist in podiatry:

1. An applicant shall provide evidence of having completed a Board-approved didactic course in Podiatry Radiology, complete clinical training under a state-licensed podiatrist, and provide the Board with images independently taken for review by the Board's director and an independent, licensed podiatrist.
2. The applicant must pass a Board-approved Podiatry Radiology or a Limited Bone Density examination with a minimum score of 70%.

C. A practical technologist in podiatry shall have obtained a minimum of two hours continuing education and a practical technologist in bone densitometry shall have obtained a minimum of one hour continuing education over the previous two years.

R12-2-204. ~~Prohibitions and Limitations~~ Nuclear Medicine Technology

A. ~~The practice of radiologic technology includes the direct application of x-radiation, technical instruction, and supervision of diagnostic and therapeutic applications.~~ Based on the following factors, the Board may approve a school of nuclear medicine technology as maintaining a satisfactory standard if its course of study:
1. Is for a period not less than 12 months of full-time study or the equivalent and is accredited by the Joint Review Committee on Education in Nuclear Medicine or meets or exceeds the standards of the Joint Review Committee on Education in Nuclear Medicine as determined by the Board,
2. Includes not less than 1900 contact hours, including but not limited to: methods of patient care, radiation safety and protection, nuclear medicine, physics and radiation physics, nuclear instrumentation, statistics, radionuclide chemistry and radiopharmacy, departmental organization and function, radiation biology, nuclear medicine in-vivo and in-vitro procedures, radionuclide therapy, computer application, clinical education, and medical law and ethics.

B. ~~The practical radiologic technology certificate, issued after August 27, 1978, authorizes the practical radiologic technologist to perform only:~~ The Board shall maintain a list of approved schools.
~~1. Radiography of the chest, involving the heart and lungs;~~
~~2. Radiography of the upper extremities, excluding the proximal one-third of the humerus; or~~
~~3. Radiography of the lower extremities, excluding the upper one-third of the femur.~~

C. ~~In addition to the anatomical limitation prescribed in subsection (B), the practical radiologic technologist is prohibited from performing any radiography involving the use of contrast media.~~ Upon completion of training, an applicant must either pass a Board-approved examination with a minimum score of 70% or, in lieu of its own examination, accept a valid certificate issued on the basis of an examination by a certificate-granting body recognized by the Board.

D. A nuclear medicine technologist shall have obtained a minimum of 24 hours continuing education over the previous two years.

R12-2-205. ~~Certificate Expiration~~ Bone Densitometry Technology

~~Failure to pay the renewal fee for certification, as specified in R12-2-206, on or before the certificate's expiration date will result in the expiration of the certificate. An expired certificate cannot be reinstated. An individual who fails to renew a certificate in a timely manner, shall reapply according to R12-2-201.~~

A. An applicant seeking approval for bone densitometry training shall apply by letter and shall address the curriculum offered for approval.

B. The Board shall review and approve the training application according to the schedule in R12-2-104.

C. The Board shall maintain a list of bone densitometry trainings approved.

D. An applicant must possess a valid state certification in radiologic technology or upon completion of training, an applicant must either pass a Board-approved examination with a minimum score of 70%, or in lieu of its own examination, the Board may accept a valid certificate issued on the basis of an examination by a Board-recognized, certificate-granting body.

E. A bone densitometry technologist shall have obtained a minimum of 24 hours continuing education over the previous two years.

R12-2-206. ~~Fees~~ Mammography Technology

~~The certification renewal fee adopted by the Board is $60. The initial application fee is specified in A.R.S. § 32-2812.~~

A. An applicant must possess certification in Radiologic Technology.

B. The applicant shall complete 40 hours of didactic instruction and at least one hundred 60 hours of clinical instruction taught by a facility accredited by the American College of Radiology and registered by this state under A.R.S. § 32-2841(B).

C. The applicant shall have obtained a valid Mammography Training Approval Form from the Board during the training.

D. Upon completion of training, an applicant must either pass a Board-approved examination with a minimum score of 70%, or in lieu of its own examination, accept a valid certificate issued on the basis of an examination by a certificate-granting body recognized by the Board.

E. A mammography technologist shall have obtained a minimum of 24 hours continuing education, with at least eight hours being mammography specific, over the previous two years.

R12-2-207. ~~Changes of Name or Address; Duplicate Certificates~~ Computed Tomography Technology

A. ~~A holder of a certificate shall notify the Board in writing of any change in name or address within 60 days of the change. A holder of a certificate requesting a change of name on a certificate shall submit the certificate containing the incorrect name to the Board before the Board issues a corrected certificate.~~ An applicant must possess certification in radiologic technology, nuclear medicine, or radiation therapy, and

B. ~~A holder of a certificate shall receive a duplicate certificate upon submitting to the Board a notarized statement describing, to the best of the certificate holder's knowledge, the circumstances of the loss or destruction of the original certifi-~~

~~cate.~~ Have at least two years documented computed tomography experience with at least 12 continuing education hours specific to computed tomography received over the past two years; or

C. Possess an advanced postprimary certification from a Board-recognized, certification-issuing agency in computed tomography.

D. A computed tomography technologist shall have obtained a minimum of 24 hours continuing education over the previous two years.

R12-2-208. Radiologist Assistant

A. An applicant must possess certification in radiologic technology, nuclear medicine or radiation therapy, and

B. Have completed an advanced academic program recognized by the Board, ARRT, ACR, NMTCB, or CBRPA.

C. The applicant shall complete at least a one-year advanced clinical preceptorship under the supervision of one or more licensed practitioners who are American Board of Radiology certified radiologists.

D. Beginning January 1, 2009, the applicant shall hold a baccalaureate degree from an accredited educational institution.

E. The Board shall maintain a list of approved academic programs.

F. Upon completion of training, the Board will accept a valid certificate issued on the basis of an examination by a certificate-granting body recognized by the Board.

G. A radiologist assistant shall have obtained a minimum of 50 hours continuing education over the previous two years.

ARTICLE 3. ~~LICENSING TIME-FRAMES~~ APPLICATION AND CERTIFICATION OF RADIOLOGIC TECHNOLOGISTS AND RADIOLOGIST ASSISTANTS

R12-2-301. ~~Licensing Time-frames~~ Applications

~~**A.** Within 30 days of receiving an initial or a renewal certificate or permit application package, the Board shall notify the applicant of any deficiencies found in the package. The Board shall provide a written comprehensive list of the deficiencies to the applicant. The 30-day time-frame for determining administrative completeness is suspended from the date the deficiency notice is mailed until the date that the Board receives all missing information from the applicant. If an applicant fails to supply the missing information or to request an extension of response time within 90 days from the date of the deficiency notice, the Board shall consider the application abandoned and require a new application with all appropriate fees.~~

~~**B.** The Board shall render a certification or permit decision within 30 days after completion of the administrative completeness review time-frame, unless an extension of 15 days is agreed to by the applicant. If deficiencies are found in the application package, the Board shall make a written comprehensive request for additional information from the applicant. The 30-day time-frame for substantive review is suspended from the date the request is mailed until the date that the Board receives additional information from the applicant. If an applicant fails to respond to the written request or to request an extension of response time within 90 days of the notice, the Board shall consider the application abandoned and require a new application with all appropriate fees.~~

~~1. If an applicant is found to be ineligible, the Board shall provide the applicant a written notice of denial explaining:~~

~~a. The reason for the denial with citation to supporting statutes or rules;~~

~~b. The applicant's right to seek an appeal of the denial; and~~

~~c. The time periods for appealing the denial.~~

~~2. If an applicant is found to be eligible, the applicant shall be notified and provided a certificate or permit number.~~

~~**C.** Within 60 days of receiving a school application package, the Board shall notify the applicant of any deficiencies found in the package. The Board shall provide a written comprehensive list of the deficiencies to the applicant. The 60-day time-frame for determining administrative completeness is suspended from the date the deficiency notice is mailed until the date that the Board receives all of the missing information from the applicant. If an applicant fails to supply the missing information or to request an extension of response time within 90 days from the date of the deficiency notice, the Board shall consider the application abandoned and require a new application with all appropriate fees.~~

~~**D.** The Board shall render a decision regarding school approval within 60 days after the completion of the administrative completeness review time-frame, unless an extension of 30 days is agreed to by the applicant. If deficiencies are found in the application package, the Board shall make a written comprehensive request for additional information from the applicant. The 60-day time-frame for substantive review is suspended from the date the request is mailed until the date that the Board receives all additional information from the applicant. If an applicant fails to respond to the written request or to request an extension of response time within 90 days of the notice, the Board shall consider the application abandoned and require a new application with all appropriate fees.~~

~~1. If an applicant is found to be ineligible, the Board shall provide the applicant a written notice of denial explaining:~~

~~a. The reason for the denial with citation to supporting statutes or rules;~~

~~b. The applicant's right to seek an appeal of the denial; and~~

~~c. The time periods for appealing the denial.~~

~~2. If an applicant is found to be eligible, the applicant shall be notified and the application shall be provided to the Board for approval.~~

~~**E.** For the purposes of A.R.S. Title 41, Chapter 6, Article 7.1, the Board establishes the following time-frames in days: Certification, Permit, and School Approval Time-frames~~

~~Type of Application~~	~~Administrative Completeness Review Time~~	~~Substantive Review Time-frame~~	~~Overall Time-frame~~
~~Certification or Permit~~	~~30~~	~~30~~	~~60~~
~~School Approval~~	~~60~~	~~60~~	~~120~~

With respect to the application procedure outlined in A.R.S. § 32-2812(A) and (B):

1. The Board accepts a passing score on the high school equivalency test (G.E.D.) as evidence of successful completion of high school or its equivalent.
2. On a notarized Board application form for certification, or as an attachment to a completed and notarized Board application, an applicant shall provide the following information:
   a. Copy of current American Registry of Radiologic Technologists (ARRT) or Nuclear Medicine Technology Certification Board (NMTCB) or Certification Board for Radiology Practitioner Assistants (CBRPA) or The International Society for Clinical Densitometry (ISCD) wallet card, if applicable, or documentation of passing a Board-approved examination;
   b. Copy of continuing education documentation, if applicable;
   c. Copy of any degree, diploma, or certificate from an approved radiologic or practical radiologic technology school;
   d. Passport size Photo;
   e. Certification fee;
   f. Name, address, and telephone number;
   g. Birth date, sex, and social security number;
   h. Purpose of application and current licensure or certificate number, if applicable;
   i. Employment information for the last three years;
   j. Education information;
   k. Criminal, moral, license/certification history; and
   l. Signature and date of signature of the applicant.

R12-2-302. ~~Repealed~~ Qualifications

A. The Board shall issue a radiologic, nuclear medicine, radiation therapy, mammography, practical technologist in radiology, podiatry, or bone densitometry, computed tomography, or bone densitometry technology or radiologist assistant certificate if the applicant meets the applicable qualifications prescribed in A.R.S. §§ 32-2812, 32-2813, 32-2814, 32-2815, 32-2819, or 32-2841 and Article 2.

B. An applicant or an inactive certificate holder who has not practiced radiologic technology during the prior three years shall pass an examination approved by the Board before certification.

C. Upon failing a certification examination a third time, a radiologic or a practical radiologic technologist applicant shall repeat the entire course of training or complete a school prescribed refresher tutorial course prior to retaking the examination.

R12-2-303. Fees

A. Under A.R.S. §§ 32-2812(A) and 32-2815(A), the application fee is a non-refundable $60, which may be prorated quarterly over the two year certification period for all radiologic technology specialties with the exception of mammography, for which the application fee is $20 under A.R.S. § 32-2841(A)(1).

B. The two year renewal fee is $60 with the exception of the renewal fee for mammography, which is $20.

R12-2-304. Renewals

A. If the applicant's last name begins with the letter A through M, the certificate expires on the holder's birth month in every even numbered year, except as provided in A.R.S. § 32-4301. All others expire on the holder's birth month in every odd numbered year.

B. The Board may renew a certificate for two years on payment of the fee and submission of a completed renewal application containing all information requested by the Board to show the applicant for renewal is a technologist in good standing.

C. A certificate holder who fails to renew the certificate on or before expiration, but within 30 days of expiration, shall pay a penalty late fee of $50.

D. A certificate holder who fails to renew the certificate beyond 30 days of expiration and who continues to practice radiologic technology will be subject to disciplinary action, which may include censure, reprimand, or denial of renewal by the Board.

E. On request of a certificate holder in good standing, the Board may place the certification on inactive status. The Board may reinstate the certificate on receiving a renewal/reactivation application and payment of the renewal fee, which will be prorated.

F. An expired certificate, that is not renewed within 30 days after the certificate expires, cannot be renewed. An individual, who fails to renew a certificate in a timely manner, shall reapply.

R12-2-305. Display of Certificate

A. Every technologist, radiologist assistant or special permit holder shall display an original certificate at the place of

employment. Upon secondary employment, the original certificate shall be displayed at the primary place of employment, with a copy posted at the secondary place of employment that documents where original certificate is posted.

B. The Board may issue a replacement certificate for a $10 processing fee when:

1. A holder of a certificate submits documentation of a legal name change.
2. A holder of a certificate submits a statement describing, to the best of their knowledge, the circumstances of a loss or destruction of the original certificate.

ARTICLE 4. ~~SCHOOLS OF PRACTICAL RADIOLOGIC TECHNOLOGY~~ SCOPE OF PRACTICE

R12-2-401. ~~Course Time frames~~ Radiologic Technology, Mammography, and Radiation Therapy Technology

A. ~~The administrator of a school of practical radiologic technology shall ensure that the time-frame for the course of study shall not be less than six months or more than 24 months for completion of 210 hours of didactic training and 480 hours clinical training.~~ Radiologic technologists shall meet the parameters determined by the profession through the 2013 American Society of Radiologic Technologists Radiography Practice Standards incorporated by reference and available for inspection or copying at the Arizona Radiation Regulatory Agency, 4814 S. 40th St., Phoenix, AZ 85040. This incorporated material is also available from ASRT Communications Department, 15000 Central Avenue, Albuquerque, NM 87123-3909 or http://www.asrt.org/main/standards-regulations/practice-standards/practice-standards. This incorporated material contains no future editions or amendments.

B. Mammography technologists shall meet the parameters determined by the profession through the 2012 American Society of Radiologic Technologists Mammography Practice Standards incorporated by reference and available under R12-1-401(A). This incorporated material contains no future editions or amendments.

C. Radiation therapy technologists shall meet the parameters determined by the profession through the 2011 American Society of Radiologic Technologists Radiation Therapy Practice Standards incorporated by reference and available under R12-1-401(A). This incorporated material contains no future editions or amendments.

R12-2-402. ~~Clinical Training~~ Practical Radiologic Technology

A. ~~A school may provide clinical training in one general facility or two specific clinical facilities.~~ Certified practical technologists in radiology are permitted to perform radiographic examinations of the chest and extremities only. The upper extremity includes the shoulder girdle to phalanges, and the lower extremity excluding the upper one-third of the femur to the phalanges. Chest radiography may be performed to visualize the heart and lungs only.

B. ~~Types of clinical training facilities:~~ Certified practical technologists in podiatry are permitted to perform radiographic examinations of the lower leg, ankle and foot only.

1. ~~"General clinical facility" means a hospital, clinic, or doctor's office that provides clinical training in both chest and extremity radiography. The clinical training shall consist of a minimum of 12 examinations per day per student, of which 30 percent are chest examinations and 70 percent are extremity examinations.~~
2. ~~"Specific clinical facility" means a hospital, clinic, or doctor's office that provides clinical training in chest or extremity radiography. A specific clinical training program shall include a minimum of 12 examinations per day per student. The training period at a specific clinical facility devoted to chest examinations shall not exceed three weeks. The training period at a specific clinical facility devoted to extremity examinations shall not exceed nine weeks.~~

C. Certified practical technologists in bone densitometry are permitted to perform bone mineral densitometry of the distal extremities only.

D. Certified practical technologists listed in subsections (A), (B), and (C) are prohibited from conducting fluoroscopic examinations or injection of contrast. Unless otherwise prohibited in this Chapter, practical technologists shall also meet the parameters determined by the profession through the 2013 American Society of Radiologic Technologists Limited X-Ray Machine Operator Practice Standards incorporated by reference and available under R12-1-401(A). This incorporated material contains no future editions or amendments.

E. Certified practical technologists unlimited are permitted to perform all examinations a certified radiologic technologist is allowed to perform in accordance with the scope of practice listed under R12-2-401(A).

R12-2-403. ~~Equipment and Facilities~~ Nuclear Medicine Technology

~~**A.** A school is not required to have an energized laboratory and equipment, but if utilized, the laboratory and equipment shall conform to Arizona Radiation Regulatory Agency rules.~~

~~**B.** A school shall maintain a library of current books, journals, and other reference material commonly used in and related to the curriculum and profession.~~

Nuclear medicine technologists shall meet the parameters determined by the profession through the 2012 Society of Nuclear Medicine and Molecular Imaging's Nuclear Medicine Technologist Scope of Practice incorporated by reference and available for inspection or copying at the Arizona Radiation Regulatory Agency, 4814 S. 40th St., Phoenix, AZ 85040. This incorporated material is also available from the Society of Nuclear Medicine and Molecular Imaging, 1850 Samuel Morse Drive, Reston, Virginia 20190 or http://interactive.snm.org/docs/Scope of Practice NMT 6-8-2012 FINAL.pdf. This incorporated material contains no future editions or amendments.

R12-2-404. ~~Program Administration~~ Bone Densitometry Technology

~~**A.** One or more individuals may be responsible for the school's administrative, supervisory, or educational duties. However, these responsibilities shall be clearly stated in the school's administrative policies.~~

~~**B.** The following personnel shall meet the listed minimum requirements:~~

~~1. The Program Director shall be responsible for the radiography educational program, and be one of the following:~~

~~a. An Arizona certified radiologic technologist with a minimum of two years of post certification experience and two years of teaching experience in a diagnostic radiologic technology program or equivalent, as determined by the Board, or its duly authorized representative;~~

~~b. A radiologic physicist certified by the American College of Radiology or equivalent, as determined by the Board, or its duly authorized representative, with at least two years of experience as an instructor in an academic course of study in diagnostic radiologic technology or equivalent, as determined by the Board, or its duly authorized representative; or~~

~~c. A radiologist certified by the American College of Radiology, or equivalent, as determined by the Board, or its duly authorized representative, with at least two years of experience as a lecturer in an academic course of study in diagnostic radiologic technology or equivalent, as determined by the Board, or its duly authorized representative.~~

~~2. An instructor:~~

~~a. An instructor shall be qualified through academic preparation and experience to teach the assigned subjects, as determined by the Board, or its duly authorized representative. An instructor who is an Arizona certified radiologic technologist shall teach the following subjects:~~

~~i. Adult and pediatric positioning (radiologic),~~

~~ii. Physics and technical factors,~~

~~iii. Film processing,~~

~~iv. Quality control,~~

~~v. Film critique,~~

~~vi. Survey of human disease, and~~

~~vii. Radiation protection.~~

~~b. A physician or other health professional shall teach a survey of human disease and a physicist or a radiologist shall teach radiation protection, quality control, and physics.~~

~~3. Clinical supervision shall be provided by an individual who is:~~

~~a. An Arizona certified radiologic technologist with minimum of two years of post-certification experience; and~~

~~b. Available during the training period in the clinical area when radiography procedures are being performed.~~

Bone densitometry technologists shall meet the parameters determined by the profession through the 2011 American Society of Radiologic Technologists Bone Densitometry Practice Standards incorporated by reference and available under R12-1-401(A). This incorporated material contains no future editions or amendments.

R12-2-405. ~~Didactic Training~~ Computed Tomography Technology

~~The required subjects and their minimum hours are as follows:~~

~~1. Professional ethics (five hours).~~

~~a. Definition of ethics, nature of ethics, and value of ethics to the practical technologist, patient, and medical profession;~~

~~b. Professional secrecy and confidential knowledge regarding patients, physicians, and institutions;~~

~~c. Practical technologist relationship to patients, other technologists, radiologists, attending physicians, and other members of the medical staff.~~

~~2. Office procedures (five hours).~~

~~a. An instructor shall stress office professionalism, including action, appearance, and speech. Special attention shall be given to handling telephone conversations so that essential information is obtained when scheduling radiography;~~

~~b. Legal and ethical problems involving loan of radiographs, ordering examinations, ownership of equipment, visitors in the radiographic rooms, records, and use of equipment.~~

~~3. Anatomy, physiology, and medical terminology.~~

~~4. Adult and pediatric positioning (30 hours).~~

~~a. General positioning nomenclature and terminology. An instructor shall familiarize each student with the terms: anterior, posterior, lateral, oblique, caudal, cephalad, tangential, supine, prone, upright, medial, flexion, extension, adduct, abduce and other terms used to correctly position patients for radiography;~~

~~b. Procedure comprehension. Under classroom conditions, an instructor shall train each student so that the student is able to describe the anatomy visualized; describe the positions used, in terms of direction of the central ray and anatomical area of interest; name the size of film ordinarily used; describe patient preparation, if necessary; describe the special procedures applicable to radiographing specific regions of the body; identify radiographs of the basic radiographic positions; label the anatomic parts; explain variations in technical factors required for differences in patient habitus and similar anatomical areas of interest having different density and~~

~~radiographic obstructions such as casts; explain how to avoid degradation of image quality from patient motion; and; describe variations in tube-film placement required to compensate for a patient's immobility.~~

~~c. Procedure practice. In a laboratory situation, using a patient or a phantom, an instructor shall train each student so that the student is able to position the correct anatomical part, stabilizing or immobilizing the patient or phantom as needed; select the correct film size; align the x-ray tube to the anatomical part and film; and adjust the cone or collimator to the appropriate field size.~~

~~d. Radiography of pediatric and geriatric patients. An instructor shall familiarize a student with the techniques necessary to sympathize and empathize with patients. In doing so, the instructor shall train each student to gain the patient's cooperation in obtaining a useful radiograph. Also, the instructor shall train each student to recognize the maneuverability of patients of all ages; devise methodologies necessary to obtain a satisfactory radiograph; relate with the patient in a manner which will not adversely affect a patient's psychological state; and provide comfort measures that will aid in obtaining high quality radiographs.~~

~~5. Physics and technical factors (50 hours).~~

~~a. The structure of matter: the atom, elements, compounds, substances, mixtures, and modes of ionization.~~

~~b. Production and properties of x-rays: nature of electromagnetic radiation, production of x-rays, interactions of x-ray with matter, detection of ionizing radiation, and specification of the x-ray beam.~~

~~c. X-ray tubes: early x-ray tubes, modern x-ray tubes, stationary anode tubes, rotating anode tubes, types of tube cooling, tube housings and beam restricting systems, x-ray tube characteristics, focal spots, x-ray tube rating charts, and tube cooling charts.~~

~~d. Radiographic algorithms of a latent image and the prime factors of radiography (milliamperage, time, distance, and kilovoltage).~~

~~e. Factors affecting radiographic quality (density, detail, contrast distortion, and magnification) as related to chest and extremities.~~

~~f. Calibration, heat loading of x-ray tubes, conditions influencing choice of exposure factors, filters, grids, cones, cylinders, diaphragms, calipers, cassettes, film holders, technique charts, and identification system.~~

~~g. Discussions, problems, and experiments related to time, source image receptor distance, milliamperage, peak kilovoltage, and the relationships that can be established with combinations of each of these parameters, shall be provided to each student.~~

~~6. Processing (15 hours).~~

~~a. Darkroom construction, equipment, and arrangement; illumination and test for illumination, and x-ray film: handling, developing, rinsing, fixing, washing, and drying.~~

~~b. Preparation of solutions, types, care of processing apparatus, automatic processing, reduction of overexposed and underexposed radiographs, and film artifacts and their uses.~~

~~7. Quality control (10 hours). An instructor shall train each student in the following subject areas: evaluation of film system procedures, radiographic machines, image quality, film screens, film holders, and grids.~~

~~8. Film critique (20 hours).~~

~~a. Patient's relevant clinical data: reasons for radiographic examination (pathology) and assessment of the patient during the radiographic examination.~~

~~b. Technique employed: technical factors and source image receptor distance.~~

~~c. Collimation and shielding: film size, field size, shielding, and markers.~~

~~d. Positioning: basic positioning and devices.~~

~~e. Anatomy: radiographic anatomy and anatomical anomalies.~~

~~f. Radiographic quality: density, contrast, resolution, distortion and magnification, fog, grids, film screens, film processing, and image artifacts.~~

~~9. Survey of diseases (five hours). Disease and injury encountered in the radiography of chest and extremities.~~

~~10. Nursing procedures (10 hours). An instructor shall train each student in patient care, including emergency procedures.~~

~~11. Radiation protection (30 hours).~~

~~a. Atomic structure, properties of radiation, modes of x-ray production, x-ray interaction with matter (absorption processes), units of radiation exposure and dosage, personal dosimetry and survey instruments, mechanisms of biological damage (stochastic and nonstochastic effects).~~

~~b. History and basic principles of radiation protection, standards for protection against ionizing radiation, including the principles of "ALARA" (As Low As Reasonably Achievable); methods for reducing exposure to personnel and patients, including the correct use of collimator, filtration, proper kilovoltage and milliamperage, time settings; formulation of x-ray exposure techniques; and special radiation protection measures for x-ray examinations. An instructor shall demonstrate the importance of time, distance and shielding, and scattering of x-rays.~~

Computed tomography technologists shall meet the parameters determined by the profession through the 2013 American Society of Radiologic Technologists Computed Tomography Practice Standards incorporated by reference and available under R12-1-401(A). This incorporated material contains no future editions or amendments.

R12-2-406. ~~School Approval~~ Radiologist Assistant

~~**A.** An applicant seeking to open a Practical Radiologic Technology School shall apply to the Board by letter and shall address all of the issues in R12-2-401 through R12-2-405.~~

~~**B.** The Board shall review a school application in a timely manner as required in R12-2-301 and approve or deny the application.~~

~~**C.** The Board shall maintain a list of approved schools.~~

Radiologist assistants shall meet the parameters determined by the profession through the 2011 American Society of Radiologic Technologists Radiologist Assistant Practice Standards incorporated by reference and available under R12-1-401(A). This incorporated material contains no future editions or amendments.

ARTICLE 5. ~~NUCLEAR MEDICINE TECHNOLOGIST~~ Repealed

R12-2-501. ~~Definitions~~ Repealed

~~"ARRT" means the American Registry of Radiologic Technologists.~~

~~"ASCP" means the American Society of Clinical Pathology.~~

~~"Authorized user" means a physician licensed in Arizona to practice medicine and who is identified as:~~

~~An authorized user on an Agency, Nuclear Regulatory Commission (NRC), or Agreement State license that authorizes the specified medical use; or~~

~~A user in a medical use board scope program, licensed by the Agency, NRC, or Agreement State to select its own authorized users.~~

~~"Board" means the Medical Radiologic Technology Board of Examiners.~~

~~"Brachytherapy" means a method of radiation therapy in which a sealed source or group of sealed sources is used to deliver beta or gamma radiation at a distance of up to a few centimeters, by surface, intracavitary, intraluminal, or interstitial application.~~

~~"Certification" means the process by which the Board grants permission and recognition to an individual to engage in nuclear medicine technology upon finding the individual meets the qualifications specified by statute and rule.~~

~~"Certified nuclear medicine technologist" means a person who:~~

~~Has obtained certification from the Board in accordance with this Article but does not mean a licensed practitioner who performs in-vitro detection and measurement of radioactivity; or~~

~~Administers radiopharmaceuticals to human beings for diagnostic or therapeutic purposes; or with Board-approved training, performs the CT portion of a PET/CT scan while under the general supervision of a licensed practitioner.~~

~~"Diagnostic dosage" means a prescribed amount of a radionuclide or radiopharmaceutical, which is used for a diagnostic purpose.~~

~~"Direct supervision" means an authorized user who is: personally aware of, and maintains independent professional responsibility for, the procedure intended for a given patient; present in the facility; and available for immediate assistance.~~

~~"General supervision" means guidance, direction, and instruction by an authorized user who is available, but not necessarily within the supervised individual's place of employment.~~

~~"Immediate supervision" means in-room presence for instruction, direction, and guidance by an authorized user who is available to assume control of the given procedure.~~

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

~~"Misadministration" means:~~

~~The administration of a radiopharmaceutical or the radiation from a sealed source, administered for therapy purposes and involving:~~

~~The wrong radiopharmaceutical or sealed source;~~

~~The wrong patient;~~

~~The wrong route of administration; or~~

~~A dosage that differs from the prescribed dosage by 20%; or~~

~~The administration of a diagnostic dosage of a radiopharmaceutical involving:~~

~~The wrong patient;~~

~~The wrong radiopharmaceutical;~~

~~The wrong route of administration; or~~

~~A dosage to an individual that exceeds 5 rems effective dose equivalent or 50 rems dosage equivalent to any individual organ; or~~

~~A therapeutic radiation dose from a sealed source such that errors in the source calibration, time of exposure, and treatment geometry result in a calculated total treatment dose differing from the final, prescribed total treatment dose by more than 10%.~~

~~"NMTCB" means the Nuclear Medicine Technology Certification Board.~~

~~"Nuclear medicine technologist" means a person who uses radiopharmaceutical agents on humans for diagnostic or therapeutic purposes. A.R.S. § 32-2815.~~

~~"Radionuclide" means a radioactive element of a radioactive isotope.~~

~~"Radiopharmaceutical" means any drug that exhibits spontaneous disintegration of unstable nuclei with the emission of nuclear particles or photons and includes any nonradioactive reagent kit or nuclide generator that is intended to be used in the preparation of the drug.~~

~~"Radiopharmaceutical agent" means a radionuclide or a radionuclide compound designed and prepared for administration to human beings.~~
~~"Therapeutic dosage" means a prescribed amount of a radionuclide or radiopharmaceutical, which is used for a therapeutic purpose.~~

R12-2-502. ~~Use of Title~~ Repealed
~~A person without a valid certificate shall not use the title of nuclear medicine technologist or the letters "NMT" after the person's name to indicate or imply that the person is a certified nuclear medicine technologist or represent the person in any way as a certified nuclear medicine technologist. A person who holds a valid certificate issued by the Board may use the title nuclear medicine technologist.~~

R12-2-503. ~~Display of Certificate~~ Repealed
~~Each nuclear medicine technologist, including any part-time or temporary technologist provided through a temporary employment agency or service, shall display proof of certification by the Board.~~

R12-2-504. ~~Application for Approval of a Nuclear Medicine Technology School~~ Repealed
~~**A.** An applicant that seeks approval for a nuclear medicine technology school shall apply by letter and shall address all of the requirements for school approval in R12-2-505.~~
~~**B.** The Board shall review the application in a timely manner, as required in R12-2-301, and approve or deny the application.~~

R12-2-505. ~~Standards for Nuclear Medicine Technology Schools; Approved Nuclear Medicine Technology Schools~~ Repealed
~~**A.** Based on the following factors, the Board may approve a school of nuclear medicine technology as maintaining a satisfactory standard if its course of study:~~
~~1. Is for a period not less than 12 months of full-time study or the equivalent and is accredited by the Joint Review Committee on Education in Nuclear Medicine or meets or exceeds the standards of the Joint Review Committee on Education in Nuclear Medicine as determined by the Board.~~
~~2. Includes not less than 1900 contact hours, including but not limited to: methods of patient care, radiation safety and protection, nuclear medicine, physics and radiation physics, nuclear instrumentation, statistics, radionuclide chemistry and radiopharmacy, departmental organization and function, radiation biology, nuclear medicine in-vivo and in-vitro procedures, radionuclide therapy, computer application, clinical education, and medical law and ethics.~~
~~**B.** The Board shall maintain a list of approved nuclear medicine technology schools.~~

R12-2-506. ~~Certification and Grandfather Provisions~~ Repealed
~~**A.** A person who has practiced nuclear medicine without a certificate from the Board before the effective date of these rules and who wishes to continue practicing shall apply for a temporary certificate as required in A.R.S. § 32-2814(C) and (D).~~
~~**B.** A person who applies under subsection (A) shall pass the Board's certification no later than December 31, 2004.~~
~~**C.** Effective January 1, 2005, each applicant seeking certification by the Board as a nuclear medicine technologist shall provide proof of minimum education and training either by passing the Board's certification examination or presenting a valid certificate issued on the basis of an examination by a certificate-granting body recognized by the Board.~~

ARTICLE 6. ~~PRACTICAL TECHNOLOGIST IN BONE DENSITOMETRY~~ Repealed

R12-2-601. ~~Definitions~~ Repealed
~~"Practical technologist in bone densitometry" means a person authorized by the Board to perform a bone mineral densitometry limited to the extremities.~~
~~"Qualified instructor" means a person who is recognized by the Board, provides education or training in the application of ionizing radiation to extremities through the use of a bone densitometry machine, and has a relevant certification from the Board or a recognized certificate-granting body.~~

R12-2-602. ~~Recognized Certificate-granting Bodies~~ Repealed
~~The Board shall maintain a list of recognized certificate-granting bodies in the field of bone mineral densitometry.~~

R12-2-603. ~~Limitation~~ Repealed
~~The practical technologist in bone densitometry certificate authorizes the practical technologist in bone densitometry to perform densitometry only on an extremity as defined in R12-2-101.~~

R12-2-604. ~~Education~~ Repealed
~~An applicant for a certificate issued under this Article shall provide evidence of having completed a total of 80 hours of instruction from qualified instructors in the following subjects: radiation safety, conventions in densitometry, densitometry techniques, anatomy, precision and accuracy, quality control, osteoporosis overview, and understanding data.~~

R12-2-605. ~~Qualified Instructors~~ Repealed
~~The Board shall maintain a list of qualified instructors.~~