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**CHAPTER 28**

**RADIATION PROTECTION PROGRAMS**

**Authority**

N.J.S.A. 26:2D-1 et seq., specifically 26:2D-7, 26:2D-9, 26:2D-21 and 26:2D-76.

**Source and Effective Date**

R.2000 d.120, effective February 25, 2000.  
See: 31 N.J.R. 3007(a), 32 N.J.R. 1016(a).

**Executive Order No. 66(1978) Expiration Date**

Chapter 28, Radiation Protection Programs, expires on February 25, 2005.

**Chapter Historical Note**

Chapter 28, Bureau of Radiation Protection, was filed and became effective prior to September 1, 1969.

Subchapter 19, Excessive Exposure to Ionizing Radiation, was adopted as R.1972 d.102, effective July 17, 1972. See: 4 N.J.R. 4(c).

Subchapter 25, Radiation Laboratory Fee Schedule, was adopted as R.1978 d.47, effective February 8, 1978. See: 9 N.J.R. 560(a), 10 N.J.R. 101(b).

Subchapter 24, Nuclear Medicine Technology, was adopted as R.1978 d.101, effective March 20, 1978. See: 9 N.J.R. 213(b), 10 N.J.R. 146(c).

Subchapter 21, Analytical X-Ray Installations, was adopted as R.1979 d.64, effective May 1, 1979. See: 10 N.J.R. 321(a), N.J.R. 123(a).

Subchapter 41, Mercury Vapor Lamps, was adopted as R.1981 d.464, effective December 7, 1981. See: 13 N.J.R. 9(b), 13 N.J.R. 887(c).

Subchapter 1, General Provisions, and Subchapter 2, Use of Sources of Radiation and Special Exemptions, were repealed and Subchapter 1, General Provisions, and Subchapter 2, Use of Sources of Ionizing Radiation and Special Exemptions, were adopted as new rules by R.1983 d.592, effective December 19, 1983. See: 15 N.J.R. 391(a), 15 N.J.R. 2160(a).

Subchapter 42, Radio Frequency Radiation, was adopted as R.1984 d.337, effective August 6, 1984. See: 16 N.J.R. 7(a), 16 N.J.R. 2120(a).

Pursuant to Executive Order No. 66(1978), Subchapter 21, Analytical X-Ray Installations, was readopted as R.1984 d.353, effective August 6, 1984. See: 16 N.J.R. 1310(a), 16 N.J.R. 2276(a).

Subchapter 19, Medical Exposure to Ionizing Radiation by Radiologic Technologists, was adopted as R.1984 d.349, effective August 20, 1984. See: 16 N.J.R. 797(a), 16 N.J.R. 2271(a).

Pursuant to Executive Order No. 66(1978), Subchapter 24, Nuclear Medicine Technology, expired February 14, 1985.

Subchapter 24, Nuclear Medicine Technology, was adopted as new rules by R.1985 d.140, effective March 18, 1985. See: 17 N.J.R. 22(a), 17 N.J.R. 699(a).

Pursuant to Executive Order No. 66(1978), Subchapter 12, Transportation, was readopted as R.1985 d.387, effective August 5, 1985. See: 17 N.J.R. 1369, 17 N.J.R. 1884(a).

Subchapter 14, Therapeutic Installations, was repealed and Subchapter 14, Therapeutic Installations, was adopted as new rules by R.1987

d.258, effective July 6, 1987. See: 18 N.J.R. 1157(a), 19 N.J.R. 1169(a).

Subchapter 3, Registration; Radiation Protection Fee Schedule, was repealed and Subchapter 3, Registration of Ionizing Radiation-Producing Machines and Radioactive Materials, was adopted as new rules by R.1987 d.485, effective November 16, 1987. See: 19 N.J.R. 836(a), 19 N.J.R. 2167(a).

Subchapter 4, Licensing, was repealed and Subchapter 4, Licensing of Naturally Occurring and Accelerator Produced Radioactive Materials, was adopted as new rules by R.1987 d.483, effective November 16, 1987. See: 19 N.J.R. 1041(a), 19 N.J.R. 2171(a).

Subchapter 5, Controlled Areas, was repealed and Subchapter 5, Controlled Areas, was adopted as new rules by R.1987 d.484, effective November 16, 1987. See: 19 N.J.R. 839(a), 19 N.J.R. 2180(a).

Subchapter 25, Radiation Laboratory Fee Schedule, was repealed and Subchapter 25, Radiation Laboratory Fee Schedule, was adopted as new rules by R.1989 d.349, effective July 3, 1989. See: 21 N.J.R. 826(a), 21 N.J.R. 1904(a).

Pursuant to Executive Order No. 66(1978), Chapter 28, Bureau of Radiation Protection, was readopted as R.1990 d.427, effective July 30, 1990. See: 22 N.J.R. 890(a), 22 N.J.R. 2570(a).

Subchapter 16, Dental Radiographic Installations, was adopted as R.1990 d.538, effective November 5, 1990. See: 22 N.J.R. 894(a), 22 N.J.R. 3367(a).

Subchapter 27, Certification of Radon Testers and Mitigators, was adopted as R.1990 d.559, effective November 19, 1990 (operative January 13, 1991). See: 21 N.J.R. 3369(a), 22 N.J.R. 3516(a).

Subchapter 20, Particle Accelerators for Industrial and Research Use, was adopted as R.1992 d.52, effective February 3, 1992. See: 23 N.J.R. 1401(c), 24 N.J.R. 416(a).

Subchapter 15, Medical Diagnostic X-Ray Installations, was repealed and Subchapter 15, Medical Diagnostic X-Ray Installations was adopted as new rules by R.1993 d.510, effective October 18, 1993. See: 25 N.J.R. 7(a), 25 N.J.R. 1039(a), 25 N.J.R. 4770(a), 25 N.J.R. 5148(a).

Subchapter 48, Fees for the Registration of Nonionizing Radiation Producing Sources, was adopted as R.1995 d.6, effective January 3, 1995. See: 25 N.J.R. 5422(a), 26 N.J.R. 793(b), 27 N.J.R. 99(a).

Pursuant to Executive Order No. 66(1978), Chapter 28, Bureau of Radiation Protection, was readopted as R.1995 d.457, effective July 28, 1995, and Subchapter 12, Transportation, was repealed by R.1995 d.457, effective August 21, 1995. See: 26 N.J.R. 4942(a), 27 N.J.R. 3157(b).

Pursuant to Executive Order No. 66(1978), Chapter 28, Radiation Protection Programs, was readopted as R.2000 d.120, effective February 25, 2000, and Subchapter 25, Radiation Laboratory Fee Schedule, was repealed by R.2000 d.120, effective March 20, 2000. See: 31 N.J.R. 3007, 32 N.J.R. 1016(a). See, also, section annotations.

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**SUBCHAPTER 1. GENERAL PROVISIONS**

**7:28-1.1 Purpose and scope**

(a) The purpose of this chapter is to prohibit and prevent the use or presence of unnecessary radiation in such manner as to be, or tend to be, injurious or dangerous to the health of the people or the industrial or agriculture potentials of the State, or to the ecology of the State and its wildlife.

(b) Unless otherwise provided by statute or codes, rules or regulations promulgated by the Commission on Radiation Protection, this chapter shall constitute the rules of the Radiation Protection Programs, Department of Environmental Protection, and shall govern all persons installing, using, handling, transporting or storing sources of radiation.

Amended by R.2000 d.120, effective March 20, 2000.

See: 31 N.J.R. 3007(a), 32 N.J.R. 1016(a).

In (b), substituted a reference to the Radiation Protection Programs for a reference to the Bureau of Radiation Protection.

**7:28-1.2 Construction**

These rules shall be liberally construed to permit the Department, the Radiation Protection Programs and its various agencies to discharge their statutory functions.

Amended by R.2000 d.120, effective March 20, 2000.

See: 31 N.J.R. 3007(a), 32 N.J.R. 1016(a).

Substituted a reference to the Radiation Protection Programs for a reference to the Bureau of Radiation Protection.

**7:28-1.3 Practice where rules do not govern**

The Commission may rescind, amend or expand these rules from time to time, in accordance with N.J.S.A. 26:2D-7, Chapter 116, Public Laws of 1958, as amended.

**7:28-1.4 Definitions**

The following words and terms, when used in this chapter shall have the following meanings unless the context clearly indicates otherwise. Additional words and terms, applicable to a specific subchapter only, will be found in that subchapter.

(a) General Terms:

“Absorbed dose” means the energy imparted to matter by ionizing radiation per unit mass of irradiated material at the

place of interest. The special unit for absorbed dose is the rad. (See “Rad” under (b) below.)

“Act” means the New Jersey Radiation Protection Act, Chapter 116, Public Laws of New Jersey 1958, as amended, cited as N.J.S.A. 26:2D-1 et seq.

“Agreement state” means any state with which the United States Nuclear Regulatory Commission has entered into an effective agreement under subsection 274b of the Atomic Energy Act of 1954, as amended.

**7:28-21.6 Operating procedures**

(a) No person shall cause, suffer, allow or permit the possession or use of any analytical x-ray equipment unless it is operated in accordance with the following procedures:

1. All safety devices, including but not limited to, warning lights, warning indicators, and safety interlocks as required by this subchapter shall be maintained in a fully functional operating condition. These safety devices shall be tested for proper functioning as recommended by the manufacturer or once every six months and records kept of all such testing.

2. All safety devices, including but not limited to, warning lights, warning indicators, and safety interlocks originally provided at the time of the installation of the analytical x-ray equipment, but not otherwise specified by this subchapter, shall be maintained in a fully functional operating condition. An exemption may be made, subject to the approval by the Department, when the operational procedures prohibit the normal functioning of these safety devices. Records of these exemptions shall be kept.

3. In addition to and not in substitution for the applicable requirements of subchapter 7 (Radiation Surveys and Personnel Monitoring) of this chapter, all personnel operating, repairing and aligning analytical x-ray equipment shall be provided with appropriate finger or wrist personnel monitoring equipment. The reported dose equivalent shall be recorded on Form BRP-26, "Current Occupational External Radiation Exposure," or on a clear and legible form containing all the information required on BRP-26. This reported dose equivalent shall be clearly identified as resulting from exposure to analytical x-rays.

4. A radiation survey shall be made before a new installation is placed in routine operation and whenever changes are made that could adversely affect radiation protection, as required by subchapter 7 (Radiation Surveys and Personnel Monitoring). Records shall be maintained showing the results of such surveys as required by subchapter 8 (Records) of this chapter.

**7:28-21.7 Analytical x-ray equipment with a high voltage supply that cannot operate at potentials above 16 kilovolts**

(a) No person shall use an analytical x-ray unit with a high voltage supply that cannot operate at potentials above 16 kilovolts or cause it to be used unless the following requirements are met:

1. The analytical x-ray unit is registered with the Department pursuant to N.J.A.C. 7:28-3.1;

2. The registrant has had a qualified individual perform a radiation safety survey of the analytical x-ray unit and has had the qualified individual prepare and submit a report of the results of the survey to the registrant. The survey shall be performed when the analytical x-ray unit is first capable of producing radiation and before the analyt-

ical x-ray unit is used for any purpose other than installation, assembly, or the conducting of radiation surveys; and

3. The registrant shall submit a copy of the radiation survey report to the Department within 30 days after the date of the survey, and shall maintain the radiation survey report at the analytical x-ray facility for review by the Department during an inspection. The registrant shall retain the radiation survey report in compliance with N.J.A.C. 7:28-8.

(b) The registrant shall not use an analytical x-ray unit with a high voltage supply that cannot operate at potentials above 16 kilovolts or cause it to be used when the unit has been moved to a location different from that identified in the initial radiation survey report or after any modifications have been made in the equipment that may compromise radiation shielding integrity, unless the following conditions are met:

1. The registrant has had a qualified individual perform a radiation safety survey of the analytical x-ray unit and has had the qualified individual prepare and submit a report of the results of the survey to the registrant. The survey shall be performed when the analytical x-ray unit is first capable of producing radiation and before the analytical x-ray unit is used for any purpose other than installation, assembly, or the conducting of radiation surveys; and

2. The registrant shall submit a copy of the radiation survey report to the Department within 30 days after the date of the survey, and shall maintain the radiation survey report at the analytical x-ray facility for review by the Department during an inspection. The registrant shall retain the radiation survey report in compliance with N.J.A.C. 7:28-8.

(c) If the results of the radiation survey required by (a)2 and (b)1 above reveal that there are no radiation levels above 0.1 mR/hr when measured at all locations five centimeters from any accessible surface of the specific analytical x-ray unit, then this analytical x-ray unit is exempt from the requirements of N.J.A.C. 7:28-21.3, 21.4, 21.5 and 21.6(a)3.

New Rule, R.1990 d.427, effective August 20, 1990.  
See: 22 N.J.R. 890(a), 22 N.J.R. 2570(a).

SUBCHAPTERS 22 THROUGH 23. (RESERVED)

**SUBCHAPTER 24. NUCLEAR MEDICINE TECHNOLOGY****7:28-24.1 Scope**

The regulations in this subchapter establish radiation safety requirements for persons administering radiopharma-

ceuticals to humans for diagnostic or therapeutic purposes or performing diagnostic or therapeutic procedures requiring administration of radiopharmaceuticals or radioactive substances to humans. This subchapter shall not be construed to in any way confer authority upon nuclear medicine technologists to utilize sealed sources for purposes of radiotherapy.

#### 7:28-24.2 Definitions

The following words and terms, when used in this subchapter, shall have the following meanings unless the context clearly indicates otherwise.

“Act” means the Radiation Protection Act P.L. 1958, Chapter 116 as amended (N.J.S.A. 26:2D-1 et seq.).

“Approved school” means a school of nuclear medicine technology approved pursuant to this subchapter included on a list published by the department.

“Certificate” means a written authorization issued by the department pursuant to this subchapter.

“Direct supervision” means, for purposes of this subchapter, physical presence by the supervising physician or certified nuclear medicine technologist, in the room where a procedure is being performed, for a sufficient period of time to prevent unnecessary radiation to the patient.

“Initial application” means the first application submitted by an individual to the State for a license to practice nuclear medicine technology subsequent to completing the requirements in N.J.A.C. 7:28-24.4 and 7:28-24.5(a).

“License” means a written authorization issued by the department pursuant to this subchapter.

“Licensee” means any person who is licensed or recognized by the department pursuant to this chapter and the act.

“Nuclear medicine technologist” means a person who performs technical procedures in the utilization of radionuclides or radiopharmaceuticals administered to humans.

“Physician” means an individual who upon having satisfied the requirements of the New Jersey State Board of Medical Examiners, has been issued a plenary license to practice medicine and surgery in this State.

“Radionuclide” means a radioactive element or a radioactive isotope.

“Radiopharmaceutical” means a radionuclide or radioactive compound designed and prepared for organ or body system administration.

NOTE: Definitions for other terms used in this subchapter may be found in subchapter 1 of this chapter.

#### 7:28-24.3 Use of radionuclides and radiopharmaceuticals

(a) No owner or licensee shall cause, suffer, allow or permit any person to act as a nuclear medicine technologist unless such person has been issued a license as provided for by this subchapter.

(b) No person shall cause, suffer, allow or permit the use or application of radionuclides or radiopharmaceuticals or otherwise engage in the practice of nuclear medicine technology without having first satisfied the licensing requirements of this subchapter.

(c) The licensing requirements of this subchapter shall not apply to a hospital resident or intern who is specializing in nuclear medicine or to students enrolled in and attending a school or college of medicine, osteopathy or nuclear medicine technology provided such students are acting under the direct supervision of a physician or a licensed nuclear medicine technologist responsible to such physician.

(d) The licensing requirements of this subchapter shall not apply to hospital residents or interns involved in nuclear medicine procedures but not specializing therein provided that they are acting under the direct supervision of a physician or a licensed nuclear medicine technologist responsible to such physician under special circumstances.

#### 7:28-24.4 Examination requirements

(a) In order to be eligible for admission to a licensing examination, an applicant must:

1. Have satisfactorily completed a course of study in an approved school; or
2. For a period of three years from the effective date of this subchapter become qualified in accordance with section 10 of this subchapter.

**7:28-24.5 Licensing requirements**

(a) In order to become licensed, an applicant shall be required to pass the licensing examination given pursuant to this subchapter, which may be written and, when deemed necessary by the department, may include proficiency testing. The department may waive the examination requirements for any applicant who has demonstrated competency by passing a national registry examination. The department may accept in lieu of its own examination a certificate, registration, or license as a nuclear medicine technologist issued by another state; such acceptance will be based on standards in the other state being satisfactory to the department. All licensing examinations must be approved by the commission.

(b) A fee may be charged for each examination. The examination fee shall not be refunded. Application for the examinations shall be made on a form supplied by the department which shall be filed, along with the examination fee, with the department no later than midnight of the closing date for the examination.

(c) An applicant who fails to pass the examination may reapply in accordance with the application provisions of this subchapter.

(d) Licenses issued by the department pursuant to this subchapter shall be displayed prominently in the work area utilized by the licensed nuclear medicine technologist.

**7:28-24.6 Relicensing requirements**

A license issued pursuant to this subchapter shall be renewed annually upon submission of a renewal application provided by the department and containing such information as the department deems necessary to show that the nuclear medicine technologist is in good standing.

**7:28-24.7 Conditional license**

(a) Any license issued pursuant to this subchapter may be conditional, as the department deems appropriate, including, but not limited to, a condition limiting the scope of the nuclear medicine practice authorized by such license.

(b) The department may issue temporary licenses to graduates of approved schools or to persons whose applications have been approved by the commission pursuant to N.J.A.C. 7:28-24.10.

(c) No person shall cause, suffer, allow or permit the breach of any condition of a license issued pursuant to this subchapter.

**7:28-24.8 School approval**

(a) The commission may approve a school of nuclear medicine technology if it meets the essentials or equivalent of an accredited education program as established by the American Medical Association Council on Medical Education in collaboration with the Society of Nuclear Medicine, The American Society of Radiologic Technologists, American Society of Clinical Pathologists, and other collaborative organizations.

(b) A school of nuclear medicine technology, in order to become an approved school, must apply to the department in writing on forms provided by the department. All such applications will be reviewed by the commission prior to final approval. A temporary approval may be issued by the department while an application is under review.

**7:28-24.9 School curriculum and requirements**

(a) An approved school must offer the following curriculum, as a minimum, for nuclear medicine technologists:

1. Basic anatomy, physiology, and pathology;
2. Intravenous injections and radiopharmaceutical toxicology;
3. Radiation physics and mathematics;
4. Instrumentation;
5. Radiation biology;
6. Radiation protection and radiation protection standards and codes;
7. Laboratory procedures and techniques (in vivo and vitro);
8. Clinical application of radionuclides, diagnostic and therapeutic;
9. Records and administrative procedures;
10. Medical ethics.

(b) In order to maintain approval, a school must:

1. Report in writing to the department the name and address of each new student enrolled within 30 days of such enrollment and (within 30 days the name and address of) each student who has successfully completed the course of study.
2. Limit the number of students enrolled so that the ratio of students to full time certified nuclear medicine technologists, to scanning equipment and to workload at the clinical facilities shall be reasonable.
3. Provide all students with a personal radiation monitoring service, such as dosimeter or badge, during their period of attendance. Student exposure to radiation shall not exceed the occupational limits prescribed by this chapter. Students shall routinely be informed of their most recent exposure readings and an attempt shall be made to find the cause and prevent recurrence of exposure which is deemed to be unnecessary.
4. Issue to each candidate prior to admission a course catalog, bulletin, or other written statement which shall be dated, and include a description of the curriculum as a whole and the detailed courses offered, a listing of the faculty members with information regarding their qualifications, and information concerning amounts and terms for payment of any tuition or other fees or expenses to be incurred.
5. Insure that all students have on their person at all times while undergoing classroom or clinical training a readily identifiable uniform marking or coloration or identification name plate which indicates that they are students and not certified nuclear medicine technologists.

6. Not assign students excessive night or weekend experience. All night and weekend experience must be assigned only under adequate supervision and when sufficient education benefit may be derived from such service. Students shall not be assigned unsupervised night or weekend experience during their entire period of training.

#### **7:28-24.10 Consideration of experience or training in lieu of attendance at an approved school**

(a) Any person who believes he is qualified for a license pursuant to this subchapter based on training and/or experience in lieu of attendance at an approved school, may apply to the department for approval to take the license examination. The department will submit all applications to the commission for review prior to approval.

(b) Admission to the license examination pursuant to (a) above shall be permitted for a period of three years only from the effective date of this subchapter.

(c) Minimum requirements for consideration under this section shall include:

1. High school diploma or equivalent;
2. Two years of experience as a nuclear medicine technologist.

#### **7:28-24.11 Nuclear medicine records**

(a) A licensee, owner or registrant shall be responsible for recording such information as may be required as a condition of registration or licensing pursuant to this chapter. Such information may include, but is not limited to, the name of nuclear medicine technologist utilizing radionuclides or radiopharmaceuticals.

(b) A nuclear medicine technologist shall be responsible for recording the radionuclide or radiopharmaceutical dose he or she administers, and recording his name.

#### **7:28-24.12 Revocation; penalties**

(a) The department, in addition to any penalties authorized by the Act, may deny, suspend or revoke an application or license of a nuclear medicine technologist when the applicant or licensed nuclear medicine technologist has:

1. Falsified or made misleading statements in the application for a license;
2. Has altered his or her license;
3. Failed to keep or falsified any required records;
4. Failed to comply with any provision of the Act or any rules or regulations promulgated thereunder.

(b) The reasons for denial, suspension, revocation set forth in subsection (a) of this section shall be considered violation of these rules and act in addition to constituting grounds for denial, suspension or revocation.

#### **7:28-24.13 Registration and licensing requirements**

(a) The possession and use of radiopharmaceuticals are subject to the licensing requirements of N.J.A.C. 7:28-4.

(b) All owners of radiopharmaceuticals not subject to specific State licensing requirements, must register them in accordance with the requirements of N.J.A.C. 7:28-3.

#### **7:28-24.14 Responsibility of physician**

(a) Only a physician who has lawfully obtained a Federal or New Jersey State license as per N.J.A.C. 7:28-4, or is authorized under such a license, to own or possess or use radioactive substances, shall prescribe dosage, administer, or shall arrange for the administration of said substances to a human being or irradiate, or arrange for the irradiation of human beings by said substances.

(b) Any physician who arranges for the intentional human administration of, or irradiation by, radioactive substances shall be responsible for determining that only a certified nuclear medicine technologist or another qualified physician administers said radioactive substances.

(c) In addition, the physician must signify that he personally attests to the competency of the nuclear medicine technologist and must assume full responsibility for the intravenous injections by said technologist.

(d) A nuclear medicine technologist shall not apply or administer therapeutic doses of radionuclides or radiopharmaceuticals in any form to patients, although the actual material may be measured and prepared by the nuclear medicine technologist under the direction of a physician. The physician must personally determine the dose and administer the material to the patient.

(e) Only a physician who has lawfully obtained a Federal or New Jersey State license as per subchapter 5 of this chapter or who is authorized under such a license to own or possess or use radioactive substances, shall be permitted to supervise a nuclear medicine technologist. Such supervision shall require that such physician, acting within the limits specified in the laws under which he is authorized to use radioactive substances, shall determine that the administration of a radionuclide to a patient is appropriate and shall determine which radionuclide and what dosage level shall be used before such material is administered to the patient by the certified nuclear medicine technologist. Such supervision shall also require that only a physician shall receive the images and results of the examination performed after the administration of the radiopharmaceutical for the purpose of diagnostic interpretation. Such supervision shall not require that he oversee the certified nuclear medicine technologist in the measurement of doses, position of patients, operation of nuclear medicine instrumentation, injection of radionuclides or production and processing of images or test data.

**7:28-24.15 Fees**

(a) Any person who submits an application for a license, relicensing or license renewal to the department shall include as an integral part of said application a service fee as follows.

1. Application Fee: \$40.00;
2. Renewal Fee: \$20.00.

(b) The fees accompanying the application or annual registration renewal shall be in the form of a certified check or money order made payable to the State of New Jersey.

1. The fees submitted to the department are not refundable.
2. The applications or registrations and the fees accompanying them shall be mailed to:

State of New Jersey  
Department of Environmental Protection  
Bureau of Collection and Licensing Unit  
CN 402  
Trenton, New Jersey 08625

(c) The waiving of the written examination of any applicant whom the Commission on Radiation Protection has deemed competent will not result in any reduction of the fee for the license examination.

(d) The license issued pursuant to this subchapter shall be validated on an annual term commencing with January 1 of the year for which it is issued and expiring 12:00 midnight December 31 of the same year.

**7:28-24.16 Unethical conduct**

(a) No nuclear medicine technologist or student shall engage in any unethical conduct. Such conduct may include, but is not limited to:

1. Engaging in the practice of nuclear medicine technology while in an intoxicated state or under the influence of narcotic or any drugs which impair consciousness, judgement or behavior.
2. Willful falsification of records, or destruction or theft of property or records relating to the practice of nuclear medicine technology;
3. Failure to exercise due regard for the safety of life or health of the patient;
4. Unauthorized disclosure of information relating to a patient or a patient's records;
5. Discrimination in the practice of nuclear medicine technology against any person on account of race, religion, color or national origin.

**7:28-24.17 Guidelines**

The department may, from time to time, publish guideline and/or procedural rules to explain and implement the various provisions of this subchapter.

**SUBCHAPTER 25 THROUGH 26. (RESERVED)****SUBCHAPTER 27. CERTIFICATION OF RADON TESTERS AND MITIGATORS****7:28-27.1 Scope**

This subchapter establishes rules, requirements and procedures that a person who wishes to perform radon testing or mitigation in New Jersey shall comply with in order to become and remain certified. Certification is mandatory in New Jersey pursuant to N.J.S.A. 26:2D-70 et seq. for any person who sells radon/radon progeny devices, tests for radon/radon progeny or mitigates radon in buildings. Mitigation devices that reduce only radon progeny levels will not be certified under this subchapter. Any person not certified and performing radon services shall be subject to the criminal penalties in N.J.S.A. 26:2D-77.

**7:28-27.2 Definitions**

The following words and terms, when used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise.

“Act” means the New Jersey Radiation Protection Act, N.J.S.A. 26:2D-1 et seq.

“Applicant” means any person who applies for certification.

“Authorized measurement protocols” means, for radon measurements in air, the “Interim Indoor Radon and Radon Decay Product Measurement Protocols”, E.P.A. 520/1-86-04, amendments thereto, or its latest revision; and “Interim Protocols for Screening and Follow-up Radon and Radon Decay Product Measurements”, EPA 520/1-86-014-1; page 4 and 13, and 15.

“Authorized proficiency program” means the United States Environmental Protection Agency Radon/Radon Progeny Measurement and Proficiency Program, at the Eastern Environmental Radiation Facility, Montgomery, Alabama 36109 or other program equally stringent and

authorized by the Department in accordance with the latest edition of New Jersey Department of Environmental Protection document "New Jersey Radon Measurement Proficiency Program."

"Building" means a structure enclosed with exterior walls or fire walls, built, erected and framed of component structural parts, designed for the housing, shelter, enclosure or support of individuals.

"Business day" means any day of the year, exclusive of Saturdays, Sundays, and State of New Jersey holidays.

"Certified radon laboratory" means a radiological laboratory which analyzes samples for the presence of radon and/or radon decay products in a facility separate from the location in which the sample was taken using stationary detection equipment, and holds a current valid certificate issued by the Department pursuant to N.J.A.C. 7:18 for radon analysis.

"Certified person" means a certified radon measurement business, certified radon measurement specialist, certified radon measurement technician, certified radon mitigation business, certified radon mitigation specialist or certified radon mitigation technician as defined in this subchapter.

"Certified radon measurement business" means a commercial business enterprise certified pursuant to this subchapter to sell devices or test for radon and/or radon progeny.

"Certified radon measurement specialist" means a person certified pursuant to this subchapter to perform and/or evaluate radon and/or radon progeny measurements for a certified radon measurement business.

"Certified radon measurement technician" means a person certified pursuant to this subchapter to perform radon and radon progeny measurement activities.

"Certified radon mitigation business" means a commercial business outlet certified pursuant to this subchapter to design and/or install systems in buildings to mitigate and safeguard against radon contamination.

"Certified radon mitigation specialist" means a person certified pursuant to this subchapter to evaluate diagnostic tests to determine appropriate radon mitigation and safeguard strategies for a building.

"Certified radon mitigation technician" means a person certified pursuant to this subchapter who installs and/or supervises the installation of radon mitigation or safeguard systems in buildings.

"Department" means the New Jersey Department of Environmental Protection.

"Diagnostic tests" means tests performed or procedures used to determine appropriate mitigation methods for a building.

"Effective(ness)" as it applies to mitigation means, a system, material, or procedure which when installed in a building consistently reduces radon levels to or below 4 pCi/l in the lowest lived-in level of the building.

"Mitigate" means to apply materials and/or install systems and materials to reduce radon concentrations in the indoor atmosphere or prevent entry of radon into the indoor atmosphere.

"Mitigation system" means a step or series of steps employed to actively reduce radon levels in buildings including but not limited to, sealing techniques, natural and forced air ventilation techniques and soil ventilation techniques.

"Person" means and shall include corporations, companies, associations, societies, firms, partnerships, and joint stock companies as well as individuals.

"Picocurie per liter (pCi/l)" means 2.2 disintegrations per minute of radioactive material per liter. It may be used as a measure of the concentration of radon gas in air. One picocurie is equivalent to  $10^{-12}$  Curies.

"Proficiency test" means a test conducted within an authorized proficiency program that a radon measurement business must pass at prescribed times in order to demonstrate its ability to test for radon and/or radon progeny and to become certified and maintain certification.

"Radon" means the radioactive noble gas radon-222.

"Radon progeny" means the short-lived radionuclides formed as a result of the decay of radon-222, including polonium-218, lead-214, bismuth-214 and polonium-214.

"Reciprocal agreement state" means a state, formally recognized by the Department, which has established radon certification requirements and procedures no less stringent than those required by this subchapter and complies with the requirements of N.J.A.C. 7:28-27.23.

"Scope of employment" means acts carried out which are so closely connected with what a servant is employed to do and so fairly and reasonably incidental to it that they may be regarded as methods, even though improper, of carrying out the objectives of the employment and furthering the interest of the employer.

"USEPA" means the United States Environmental Protection Agency.

“Working level (WL)” means that concentration of short-lived radon decay products that will result in 130,000 million electron volts of potential alpha particle energy per liter of air. Working level is a measure of radon decay product concentration in air.

#### 7:28-27.3 General provisions

(a) Beginning 90 days (May 13, 1991) after the date of establishment of this certification program, no person may sell devices, test for, mitigate, or safeguard against the presence of radon in the State of New Jersey unless such person is certified pursuant to this subchapter or has been exempted from certification pursuant to N.J.A.C. 7:28-27.31, or temporarily certified in accordance with the provisions of N.J.A.C. 7:28-27.35.

1. The date of establishment of the certification program will be 120 days (February 12, 1991) after the date of adoption of this subchapter. Program administration

and activity fees assessed under this subchapter will not be collected until the program is established.

(b) A certified person shall continuously remain in compliance with the Act and this subchapter.

(c) No certification shall be issued or renewed unless the applicant demonstrates to the Department that the following requirements are met:

1. The applicant is not in violation of the Act or this subchapter and does not have a certification issued by the Department suspended or revoked; and

2. The applicant is capable of performing the activities for which he or she is seeking certification in accordance with the Act and this subchapter.

(d) Any person certified to perform radon measurement and/or mitigation shall only do such measurements and/or mitigations for which the person is certified.