

**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.2005 d.239, effective June 21, 2005.  
See: 37 N.J.R. 8(a), 37 N.J.R. 2675(b).

**Chapter Expiration Date**

Chapter 28, Radiation Protection Programs, expires on June 21, 2010.

**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Subchapter 1, General Provisions, and Subchapter 2, Use of Sources of Radiation and Special Exemptions, were repealed and Subchapter 1, General Provisions, and Subchapter 2, Use of Sources of Ionizing Radiation and Special Exemptions, were adopted as new rules by R.1983 d.592,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(a), 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. 1196(c).

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(a), 32 N.J.R. 1016(a). See, also, section annotations.

Subchapter 24, Nuclear Medicine Technology, was repealed and Subchapter 24, Nuclear Medicine Technology, was adopted as new rules by R.2000 d.171, effective April 17, 2000. See: 31 N.J.R. 3012(a), 32 N.J.R. 1388(a).

Subchapter 12, Remediation Standards for Radioactive Materials, was adopted as R.2000 d.314, effective August 7, 2000. See: 31 N.J.R. 1723(a), 32 N.J.R. 2866(a).

Subchapter 22, Quality Assurance Programs for Medical Diagnostic X-ray Installations, was adopted as R.2001 d.37, effective January 16, 2001. See: 32 N.J.R. 1459(a), 33 N.J.R. 292(b).

Chapter 28, Radiation Protection Programs, was readopted as R.2005 d.239, effective June 21, 2005. See: Source and Effective Date. See, also, section annotations.

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1. An analysis of the ability of the in-facility effluent monitoring system to measure the quantities and kinds of radioactive materials discharged under normal and under accident conditions;
2. An analysis of the ability to predict the effect of such releases on environmental contamination and radiation levels; and
3. A description of the off-site environmental monitoring system, if any, with the kinds of instruments, their sensitivity, and use.

#### 7:28-18.3 Operation

(a) The owner of an existing major nuclear facility shall submit the information required in N.J.A.C. 7:28-18.2(c) (Facility description and required monitoring program) within one month of March 1, 1969, if he has not already done the effective equivalent of this.

(b) Operation of a major nuclear facility and its monitoring program shall be consistent with all provisions of this Chapter.

#### 7:28-18.4 Emergency plans

The owner of every major nuclear facility shall make emergency operational plans in accordance with N.J.A.C. 7:28-1.5 (Emergency precautions). These plans shall be submitted to the Department prior to the start of operation.

#### 7:28-18.5 Radiation incidents

The owner of every major nuclear facility shall report any radiation incident in accordance with N.J.A.C. 7:28-13 (Reports of Theft and Radiation Incidents).

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### SUBCHAPTER 19. MEDICAL EXPOSURE TO IONIZING RADIATION BY RADIOLOGIC TECHNOLOGISTS

#### 7:28-19.1 Purpose and responsibility

(a) The purpose of these rules and regulations is to prohibit and prevent excessive and improper exposure to ionizing radiation as set forth in P.L. 1981, c.295, Radiologic Technologist Act (N.J.S.A. 26:2D-24).

(b) Any person owning, using or handling sources of radiation directly or indirectly, shall be responsible for compliance with provisions of these rules and regulations.

#### 7:28-19.2 Definitions

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

“Board” means the Radiologic Technology Board of Examiners created pursuant to N.J.S.A. 26:2D-24 et seq.

“CAHEA” means the Committee on Allied Health Education Accreditation.

“Chest x-ray technologist (LRT(C))” means a person, other than a licensed practitioner, whose practice of radiologic technology is limited to the chest area for diagnostic purposes.

“Commission” means the New Jersey Commission on Radiation Protection.

“Commissioner” means the Commissioner of the Department of Environmental Protection.

“Dental x-ray technologist (LRT(D))” means a person other than a licensed practitioner, whose practice of radiologic technology is limited to dental radiography for diagnostic purposes.

“Department” means the New Jersey Department of Environmental Protection.

“Diagnostic x-ray technologist (LRT(R))” means a person, other than a licensed practitioner, whose application of radiation to human beings is for diagnostic purposes.

“JRC/ERT” means Joint Review Committee in Education for Radiologic Technology.

“License” means a certificate issued by the Board authorizing the licensee to operate equipment emitting ionizing radiation on human beings for diagnostic or therapeutic purposes in accordance with the provisions of this subchapter.

“Licensed practitioner” means a person licensed or otherwise authorized by law to practice medicine, dentistry, dental hygiene, podiatry, chiropody, osteopathy or chiropractic.

“Licensed Radiologic Technologist, (LRT)” means any person licensed pursuant to this subchapter.

“Orthopedic x-ray technologist, (LRT(O))” means a person, other than a licensed practitioner, whose practice of radiologic technology is limited to the spine and extremities for diagnostic purposes only.

“Podiatric x-ray technology (LRT(P))” means a person, other than a licensed practitioner, whose practice of radiologic technology is limited to the operation of x-ray machines as used by podiatrists on the lower leg and foot area for diagnostic purposes only.

“Radiation therapy technologist (LRT(T))” means a person, other than a licensed practitioner, whose application of radiation to human beings is for therapeutic purposes.

"Radiologic technologist" means any person who is licensed pursuant to this subchapter, which shall include chest x-ray technologist (LRT(C)), dental x-ray technologist (LRT(D)), diagnostic x-ray technologist (LRT(R)), radiation therapy technologist (LRT(T)), podiatric x-ray technologist (LRT(P)), orthopedic x-ray technologist (LRT(O)), and urologic x-ray technologist (LRT(U)).

"Radiologic technology" means the use of equipment emitting ionizing radiation on human beings for diagnostic or therapeutic purposes under the supervision of a licensed practitioner.

"Student" shall mean any person who is enrolled in an approved course of study under the Radiologic Technologist Act (N.J.S.A. 26:2D-24 et seq.) or this subchapter.

"Unethical conduct" shall include, but not be limited to:

1. Engaging in the use of medical equipment emitting ionizing radiation or in the performance of any aspect of radiologic technology while in an intoxicated condition or under the influence of narcotic or any drugs which impair consciousness, judgement or behavior.
2. Willful falsification of records, or illegal destruction or theft of property or records relating to the practice of radiologic 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 his records.
5. Discrimination in the practice of radiologic technology against any individual because of race, religion, creed, color or national origin.

"Urologic x-ray technologist" means a person, other than a licensed practitioner, whose practice of radiologic technology is limited to the abdomen and pelvic area for urologic diagnostic purposes only.

Amended by R.1985 d.501, effective October 7, 1985.  
See: 17 N.J.R. 1632(a), 17 N.J.R. 2393(a).

Added definition "podiatric x-ray technologist (LRT(P))."

Amended by R.1987 d.139, effective March 16, 1987.

See: 18 N.J.R. 236(a), 19 N.J.R. 449(b).

Added definitions "orthopedic x-ray technologist" and "urologic x-ray technologist" and amended "radiologic technologist."

### 7:28-19.3 General provisions

(a) Except as hereinafter provided, no person other than a licensed practitioner or the holder of a license as provided in this subchapter shall use x-rays in such a manner as to expose human beings.

(b) The Board shall issue a license pursuant to this subchapter provided the applicant for a specific license has met all requirements as prescribed in N.J.A.C. 7:28-19.4.

(c) No person shall operate equipment emitting ionizing radiation in such a manner as to expose human beings or cause, suffer, allow or permit the use of such equipment in such a manner except as provided in this subchapter.

(d) No person shall operate equipment emitting ionizing radiation in such a manner as to expose human beings unless such person holds a valid license issued by the Board, pursuant to this subchapter, and unless such use is restricted to the scope of practice defined on the license.

(e) No person shall operate equipment emitting ionizing radiation in such a manner as to expose human beings unless the equipment complies with all relevant provisions of Chapter 28, Title 7 of the New Jersey Administrative Code (N.J.A.C. 7:28).

(f) The license of a radiologic technologist may be suspended for a fixed period or may be revoked, or the holder of such a license may be reprimanded or otherwise disciplined in accordance with the provisions and procedures filed in N.J.S.A. 26:2D-24 et seq. and N.J.S.A. 26:2D-57.

(g) The Board shall establish criteria and standards for programs of diagnostic, radiation therapy, dental, chest, podiatric, orthopedic, or urologic x-ray technology and approve these programs upon finding that the standards and criteria have been met.

(h) No person licensed to operate equipment emitting ionizing radiation shall be permitted in the primary beam, unless it is deemed essential for the specific examination by the licensed practitioner.

Amended by R.1985 d.501, effective October 7, 1985.  
See: 17 N.J.R. 1632(a), 17 N.J.R. 2393(a).

Added podiatric in (g).

Amended by R.1987 d.139, effective March 16, 1987.

See: 18 N.J.R. 236(a), 19 N.J.R. 449(b).

Added orthopedic or urologic to (g); (h) added.

### 7:28-19.4 Licensure procedure

(a) The Board shall admit to examination for licensing any applicant who shall pay to the Department a nonrefundable fee as specified in N.J.A.C. 7:28-19.12 and submit satisfactory evidence, verified by oath or affirmation, that the applicant:

1. At the time of application is at least 18 years of age;
2. Is of good moral character;
3. Has successfully completed a four year course of study in a secondary school approved or recognized by the State Board of Education, or passed an approved equivalency test; and
4. Has complied with the applicable requirements of (b) below.

(b) In addition to the requirements of (a) above, any person seeking to obtain a license in a specific area of radiologic technology must comply with the following applicable requirements:

1. Each applicant for a license as a diagnostic x-ray technologist (LRT(R)) shall have satisfactorily completed a 24-month course of study in diagnostic x-ray technology approved by the Board or its equivalent as determined by the Board.

2. Each applicant for a license as a radiation therapy technologist (LRT(T)) shall have satisfactorily completed a 24-month course in radiation therapy technology approved by the Board or the equivalent of such as determined by the Board.

3. Each applicant for a license as a chest x-ray technologist (LRT(C)) shall have satisfactorily completed the basic curriculum for chest radiography as approved by the Board or its equivalent as determined by the Board.

4. Each applicant for a license as a dental x-ray technologist (LRT(D)) shall have satisfactorily completed the curriculum for dental radiography as approved by the Board or its equivalent as determined by the Board.

5. Each applicant for a license as a podiatric x-ray technologist (LRT(P)) shall have satisfactorily completed the basic curriculum for podiatric radiography as approved by the Board or its equivalent as determined by the board.

6. Each applicant for a license as an orthopedic x-ray technologist (LRT(O)) shall have satisfactorily completed the basic curriculum for orthopedic radiography as approved by the Board or its equivalent as determined by the Board.

7. Each applicant for a license as a urologic x-ray technologist (LRT(U)) shall have satisfactorily completed the basic curriculum for urologic radiography as approved by the Board or its equivalent as determined by the Board.

(c) Each applicant for a license shall be required to pass an examination designated and approved by the Board pursuant to N.J.S.A. 26:2D-31a.

(d) The Board may accept in lieu of its own examination, a current certificate of The American Registry of Radiologic Technologists (ARRT), issued on the basis of a Registry examination satisfactory to the Board, or a certification or license as a radiologic technologist issued by another state provided that the standards are at least as stringent as those established by the Board.

(e) The Board may accept in lieu of its own examination for Dental X-Ray Technologist LRT(D):

1. A current certificate of the New Jersey Board of Dentistry issued on the basis of satisfactory completion of the certification examination given by the Certifying Board of the American Dental Assistants' Association and any education requirements as may be prescribed by the New Jersey Board of Dentistry, provided that the above standards are at least as stringent as those established by the Board.

2. A current certificate issued by the Certifying Board of the American Dental Assistants' Association, provided that the standards of the above are at least as stringent as those established by the Board.

(f) All licenses are renewable as of December 31 of every even numbered year following the year of issuance. A license shall be renewed by the Board for a period of two years upon payment of a renewal fee as specified in N.J.A.C. 7:28-19.12, if the applicant has complied with all other applicable conditions or requirements established by the Board.

(g) Every radiologic technologist shall carry his license on his person at work. The license shall be displayed on request.

(h) An applicant who fails to pass the examination may reapply for the examination provided the applicant complies with the following:

1. Files a new application;
2. Pays the appropriate nonrefundable fee;
3. Submits the required documentation stated in (a) and (b) above; and
4. Satisfies any additional conditions or requirements set forth by the Board.

(i) The board may, in its discretion, issue a temporary license to any person whose license or relicensure may be pending and in whose case the issuance of a temporary license may be justified by reason of special circumstances. A temporary license shall be issued only if the Board finds that its issuance will not violate the purposes of the act or tend to endanger the public health and safety. A temporary license shall expire 90 days after the date of the next examination if the applicant is required to take the same, or, if the applicant does not take the examination, then on the date of the examination. In all other cases, a temporary

license shall expire when the determination is made either to issue or deny the applicant a regular license and in no event shall a temporary license be issued for a period longer than 180 days. No more than two temporary licenses may be issued to any individual.

Amended by R.1985 d.501, effective October 7, 1985.

See: 17 N.J.R. 1632(a), 17 N.J.R. 2393(a).

(b)5 added.

Amended by R.1987 d.139, effective March 16, 1987.

See: 18 N.J.R. 2361(a), 19 N.J.R. 449(b).

Substantially amended.

#### 7:28-19.5 Proceedings for suspension or revocation

(a) The license of a radiologic technologist may be suspended for a fixed period, or may be revoked, or the technologist may be censured, reprimanded or otherwise disciplined, in accordance with the provisions and procedures defined in this subchapter, if after due hearing it is determined that he:

1. Is guilty of any fraud or deceit in his activities as a radiologic technologist or has been guilty of any fraud or deceit in procuring his license;

2. Has been convicted in a court of competent jurisdiction, either within or without this State, of a crime involving moral turpitude, except that if the conviction has been reversed and the holder of the license discharged or acquitted, or if he has been pardoned or his civil rights restored, the license may be restored to him;

3. Is or has been afflicted with any medical problem, disability, or addiction which, in the opinion of the board, would impair his professional competence;

4. Has aided and abetted a person who is not a licensed radiologic technologist or otherwise authorized pursuant to N.J.A.C. 7:28-19.4 in engaging in the activities of a radiologic technologist;

5. Has undertaken or engaged in any practice beyond the scope of the authorized activities of a radiologic technologist pursuant to the act;

6. Has falsely impersonated a duly licensed or former duly licensed radiologic technologist or is engaging in the activities of a radiologic technologist under an assumed name;

7. Has been guilty of unethical conduct as defined by rules promulgated by the commission;

8. Has continued to practice without obtaining a license renewal as required by this act;

9. Has applied ionizing radiation to a human being without the specific direction of a duly licensed practitioner as defined herein; or to any person or part of the human body outside the scope of his specific authorization;

10. Has acted or is acting as an owner, co-owner, or employer in any enterprise engaged in the application of ionizing radiation to human beings for the purpose of diagnostic interpretation, chiropractic analysis, or the treatment of disease;

11. Has expressed to a member of the public an interpretation of a diagnostic X-ray film or fluorescent image;

12. Has used or is using the prefix "Dr.," unless entitled to do so pursuant to a degree granted, the word "doctor" or any suffix or affix to indicate or imply that the radiologic technologist is a duly licensed practitioner as defined herein when not so licensed;

13. Is or has been guilty of incompetence or negligence in his activities as a radiologic technologist.

(b) Proceedings against any licensed radiologic technologist under this section shall be instituted by filing with the Board a written charge or charges in the form of a petition under oath against such licensed radiologic technologist.

1. The charges may be preferred by any person, corporation, association or public officer, or by the Department in the first instance.

2. A copy of the charges, together with a report of such investigation as the Department shall deem proper, shall be referred to the Board for its recommendation to the Commissioner.

(c) If the Commissioner determines the matter to be a contested case, he shall either designate three or more of the Board as a committee to hear and report on the charges and shall set a time and place for the hearing or shall refer the matter to the Office of Administrative Law for hearing before an administrative law judge, pursuant to the "Administrative Procedure Act," P.L. 1968, c.410 (N.J.S.A. 52:14B-1), as amended and supplemented. For the purpose of this section, the Board, its committee or the administrative law judge shall have power to issue subpoenas for the appearance of witnesses, and to take testimony under oath.

(d) Upon the conclusion of the hearing, the hearing officer shall make a written report of his findings and conclusions and shall transmit them together with his recommendation, to the Commissioner.

1. If the accused is found not guilty by the Commissioner, he shall order the charges dismissed.

2. If the accused is found guilty of the charges, the Commissioner shall, in his discretion, issue an order suspending, revoking or annulling the license or registration of the accused, or otherwise disciplining him.

(e) Where the license of any person has been revoked or annulled, under (c)2 above, the Board may after the expiration of two years accept an application for restoration of such license or registration.

Amended by R.1995 d.457, effective August 21, 1995.

See: 26 N.J.R. 4942(a), 27 N.J.R. 3157(b).

In (b)1 changed "proffered" to "preferred".

**7:28-19.6 Practice of radiologic technology**

(a) The practice of diagnostic radiologic technology shall include: patient measurement, proper positioning for varied procedures to demonstrate the appropriate anatomical part on a radiograph as requested by a physician, selecting the correct technique factors on control panel, selecting proper distance and exercising proper principles of radiation protection and making x-ray exposures.

(b) The practice of radiation therapy technology shall include setting up the treatment position, delivering the required daily 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 localization, assisting the physicist in calibration procedure, assisting in treatment planning procedures and exercising proper principles of radiation protection.

(c) The practice of dental x-ray technology shall include application of x-rays to human beings for diagnostic dental examination and exercising proper principles of radiation protection.

(d) The practice of chest x-ray technology shall include the application of x-rays to human beings restricted to the chest areas which shall be limited to posterior-anterior, anterior-posterior, oblique, lateral, decubitus and apical lordotic views of the chest for diagnostic purposes only, and exercising proper principles of radiation protection. It shall not include bronchograms, angiograms, cardiac catheterization procedures, tomography and similar procedures.

(e) The practice of podiatric x-ray technology shall include patient measurement, proper positioning, selecting adequate technique factors on control panel, demonstrating anatomy as requested by physician, selecting proper distance, exercising proper principles of radiation protection and making x-ray exposures. The application of x-rays to a human being by podiatric x-ray technologists is restricted to the distal third lower leg (tibia/fibula) which shall include the ankle and foot area and shall not include the knee joint.

(f) The practice of orthopedic x-ray technology shall include application of x-rays to human beings to spine and extremities for diagnostic purposes. Such practice shall include patient measurement, proper positioning to demonstrate the appropriate anatomical part on a radiograph as requested by a physician, selecting the correct technique factors on control panel, selecting proper distance, exercising proper principles of radiation protection and making x-ray exposure.

(g) The practice of urologic x-ray technology shall include application of x-rays to human beings limited to the abdomen and pelvic area for urologic diagnostic purposes. Such practices shall include patient measurement, proper positioning to demonstrate the appropriate anatomical part on a radiograph as requested by a physician, selecting correct technique factors on control panel, selecting proper distance, exercising proper principles of radiation protection and making x-ray exposure.

Amended by R.1985 d.501, effective October 7, 1985.  
See: 17 N.J.R. 1632(a), 17 N.J.R. 2393(a).

(e) added.

Amended by R.1987 d.139, effective March 16, 1987.

See: 18 N.J.R. 2361(a), 19 N.J.R. 449(b).

(f) and (g) added.

**7:28-19.7 Supervision of a licensed practitioner**

(a) Supervision of a Licensed Radiologic Technologist by a licensed practitioner shall require that such licensed practitioner, acting within the limits specified in the laws under which the practitioner is licensed shall determine that an x-ray exposure of a patient should be made and the part or parts of that patient's body which should be exposed, before a Licensed Radiologic Technologist may apply x-rays to a human being. Such supervision shall also require that only a licensed practitioner shall receive exposed and processed x-ray film for the purpose of diagnostic interpretation.

(b) Supervision by a licensed practitioner shall not require that a licensed practitioner oversee the Licensed Radiologic Technologist who is performing within the scope of his/her license as provided in N.J.A.C. 7:28-19.6

(c) Nothing in this section shall be construed to apply to students where use of radiation is governed under any other sections of this subchapter.

**7:28-19.8 Students**

(a) Candidates for admission to an educational program approved pursuant to N.J.S.A. 26:2D-24 shall satisfy the following minimum requirements:

1. Be of good moral character; and
2. Have successfully completed a four-year course of study in a secondary school approved by the State Board of Education or passed an approved equivalency test.

(b) All candidates for admission shall be required to submit a formal application. Candidates' high school and other credentials shall be obtained prior to selection. For accepted students these shall be kept on file at the sponsoring institution.

(c) A sponsoring institution shall report in writing to the Department the name and address of each new student enrolled within 30 days and each student who has successfully completed the course of study within 30 days.

(d) The sponsoring institution shall maintain an adequate student/licensed radiologic technologist ratio as determined by the Board. In a limited license curriculum the LRT shall be licensed in the category the student is pursuing. A licensed diagnostic radiologic technologist (LRT(R)) may supervise students enrolled in any limited license curriculum.

(e) All students shall be provided with a personal radiation monitoring service, such as dosimeter or badge, during their period of attendance. Student exposure to radiation shall be within the occupational limits prescribed by N.J.A.C. 7:28-6.

1. 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.

2. Students shall not be permitted to be in the primary beam to hold patients during exposure, remain unnecessarily or unprotected in the x-ray room outside the control booth during exposure, or engaged in any other practices likely to result in a continuous and/or excessive exposure radiation.

(f) A sponsoring institution shall issue to each student who satisfactorily completes the course of study a formal certificate.

(g) A sponsoring institution shall issue to each candidate prior to admission a currently dated course catalog, bulletin, or other written statement, which shall describe the curriculum as a whole and the detailed course offered, list the faculty members with information regarding their qualifications, and inform each candidate of the amount and terms for payment of any tuition or other fees or expenses to be incurred. The policies relating to refund of fees, hours of attendance, vacation, holidays, absence, probation, uniforms, laundry, meals, stipends, rooms, transportation, and all requirements for satisfactory completion of the course of study shall be set forth clearly.

(h) All students shall have on them at all times while undergoing classroom or clinical education readily identifiable uniform marking or coloration or identification name plates indicative that they are students and not Licensed Radiologic Technologists. Inasmuch as schools differ, a variety of identification of students will be allowed, provided, however, that each school adopt and use a standard method of student identification approved by the Board of Examiners and registered with the Board.

Amended by R.1987 d.139, effective March 16, 1987.  
See: 18 N.J.R. 2361(a), 19 N.J.R. 499(b).

Old (d) deleted and new (d) substituted.

#### 7:28-19.9 Program approval

(a) The program in diagnostic x-ray technology shall be at least a 24-month course or its equivalent as determined by the Board. The Board may approve a program in diagnostic x-ray technology if it complies with the standards and criteria established by the Board. The curriculum for this course may follow CAHEA standard provided that the standards are not in conflict with Board policies.

(b) Accreditation Status Categories for Radiography and Radiation Therapy Programs shall be established by the Board and distributed to each program.

(c) The program of radiation therapy technology shall be at least a 24-month course of study or its equivalent as determined by the Board. The Board may approve a program of radiation therapy technology if it complies with the standards and criteria established by the Board. The curriculum for the course may follow CAHEA standards provided that the standards are not in conflict with the Board policies.

(d) The Board shall establish criteria and standards for programs of chest, dental, podiatric, orthopedic and urologic radiography and may approve such programs upon finding that the standards and criteria have been met.

(e) All applications for program approval and accreditation shall be made to the Board on forms provided by the Department.

(f) A sponsoring institution applying for program approval shall supply all data necessary for a complete evaluation of its administration organization, faculty, physical facilities, student policies, curriculum and instruction and such other information and records as the Board may require.

(g) A site inspection of a sponsoring institution and its affiliates shall be made by an appointee of the Board or employee of the Department, except the Board may, in its discretion accept approval by the Joint Review Committee (JRC/ERT) in Education for Radiologic Technology and enter into a joint agreement with JRC/ERT to perform site inspections, in lieu of a separate State inspection.

(h) The Board may grant provisional accreditation based upon an agreement by a sponsoring institution to correct specified deficiencies within a period of time agreed to by the Board.

1. A sponsoring institution operating under a provisional accreditation shall within 15 days notify all enrolled students via certified mail of the institution's accreditation status.

2. All future correspondence and catalogs dispensed by such institutions regarding its programs shall include a statement regarding its provisional accreditation status.

(i) Accreditation and/or Provisional accreditation may be withheld or withdrawn, for failure to correct specified deficiencies and where the Department has determined that the institution is engaging in practices that are not consistent with acceptable standards for the operation of an educational institution. The sponsoring institution shall be notified in writing of the violation or violations resulting in withholding of accreditation or of the intent to withdraw accreditation and may, within 30 days of said notification, petition the Department in writing for a review thereof, and shall thereupon be given the opportunity to be heard on the violations by the Commissioner of Environmental Protection or shall be referred to the Office of Administrative Law. The petition shall be addressed to Office of Legal Affairs, ATTENTION: Adjudicatory Hearing Requests, Department of Environmental Protection, CN 402, Trenton, New Jersey 08625-0402. Hearings referred to the Office of Administrative Law shall be conducted in accordance with the provisions of the Administrative Procedure Act (N.J.S.A. 52:14B-1 et seq.) and the Uniform Administrative Procedure Rules (N.J.A.C. 1:1).

(j) A sponsoring institution and its affiliates may be required at any time to submit or make available to the Department such information or records as the Department or its authorized officers, employees or representatives requests and shall permit an authorized officer, employee or representative of the Department to perform site inspections. Failure to so perform shall be considered a violation of this section.

(k) A sponsoring institution whose accreditation has been withdrawn shall not be eligible for reaccreditation until such time as the deficiencies have been corrected.

(l) Accreditation may be withdrawn if the sponsoring institution does not have any students for a period of two successive years.

(m) A list of accredited programs and the criteria and standards as established by the Board will be available from the Department.

(n) To maintain accreditation, programs will be periodically reviewed by the Board to determine compliance with the standards and criteria as established by the Board. The Board may, at its discretion enter into agreement of settlement regarding its findings.

(o) Any violations of the standards may affect the program's accreditation status not withstanding any other remedy available to the Department.

(p) The sponsoring institution shall prepare in satisfactory written form and make use of detailed curriculum, a course outline for each required subject, and adequate lesson plans for classroom instruction. These materials shall be on file at the sponsoring institution and shall be accessible to any authorized officer, employee or representative of the Department.

(q) The sponsoring institution shall schedule classroom sessions in advance and give students sufficient notice thereof.

Amended by R.1985 d.501, effective October 7, 1985.

See: 17 N.J.R. 1632(a), 17 N.J.R. 2393(a).

Deleted "radiography" and substituted "podiatric."

Amended by R.1987 d.139, effective March 16, 1987.

See: 18 N.J.R. 2361(a), 19 N.J.R. 449(b).

Added orthopedic and urologic.

Administrative change in (i).

See: 23 N.J.R. 3325(b).

#### 7:28-19.10 Use of medical ionizing equipment by students

(a) Students enrolled in and attending a Board approved program of radiologic technology may utilize the equipment emitting ionizing radiation in such a manner as to expose human beings for diagnostic or therapeutic purposes under the supervision of a licensed physician or a licensed radiologic technologist.

(b) Students enrolled in and attending a Board approved diagnostic, chest, dental, podiatric, orthopedic or urologic radiologic technology program may apply radiation to a human being for necessary diagnostic purposes only at the approved clinical facilities of the sponsoring institutions.

1. The operation of the x-ray equipment by a student shall be for the purpose of clinical experience in radiologic procedures and shall occur under the direct supervision of a licensed radiologic technologist in the appropriate category or a licensed practitioner.

2. Clinical supervision of the students shall be in accordance with Board policy.

(c) Students enrolled in and attending a New Jersey State approved college or college of medicine, osteopathy, dentistry, podiatry, or chiropractic may apply radiation to a human being for diagnostic purposes under the direct supervision of a licensed practitioner.

(d) Students enrolled in and attending an approved program of radiation therapy technology may apply radiation to a human being for necessary diagnostic (simulation) and therapeutic procedures at the clinical facilities of such school and college for the purpose of clinical experience in the use of radiation therapy equipment. Clinical supervision of the students shall be in accordance with Board policy.

(e) The maximum hours of clinical and academic involvement for any student enrolled in an approved school of radiation therapy technology or diagnostic x-ray technology in New Jersey shall not exceed a total of 40 hours per week.

Amended by R.1985 d.501, effective October 7, 1985.

See: 17 N.J.R. 1632(a), 17 N.J.R. 2393(a).

Added "podiatric" in (b).

Amended by R.1987 d.139, effective March 16, 1987.

See: 18 N.J.R. 2361(a), 19 N.J.R. 449(b).

Added orthopedic and urologic.

#### 7:28-19.11 Criteria and standards

The Board will establish criteria and standards for educational programs in each licensing category. These standards will be printed and available from the Department of Environmental Protection, Bureau of Radiological Health, PO Box 415, Trenton, New Jersey 08625-0415.

Amended by R.2005 d.239, effective July 18, 2005.

See: 37 N.J.R. 8(a), 37 N.J.R. 2675(b).

Substituted "Radiological Health, PO Box 415" for "Radiation Protection" in the address.

#### 7:28-19.12 Fees

(a) Any person who submits an application for a license 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. Examination Fee: \$60.00
3. Renewal Fee: \$50.00
4. Replacement License: \$20.00

(b) The fees accompanying the application or license 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 fees accompanying the initial application or renewal shall be mailed to:

State of New Jersey  
 Department of Environmental Protection  
 Bureau of Revenue  
 PO Box 402  
 Trenton, New Jersey 08625-0402

New Rule, R.1987 d.139, effective March 16, 1987.

See: 18 N.J.R. 2361(a), 19 N.J.R. 449(b).

Amended by R.1990 d.511, effective October 15, 1990.

See: 22 N.J.R. 1975(a), 22 N.J.R. 3227(c).

Fees in (a) increased; fee for replacement license added.

## SUBCHAPTER 20. PARTICLE ACCELERATORS FOR INDUSTRIAL AND RESEARCH USE

### 7:28-20.1 Scope

(a) This subchapter establishes requirements and procedures for the registration and use of all particle accelerators, with the exception of those regulated by N.J.A.C. 7:28-14 and 15.

(b) A person shall not operate or permit the operation of a particle accelerator unless the equipment and installation meet the applicable requirements of this subchapter.

(c) In addition to the requirements of this subchapter, all registrants of particle accelerators are subject to all other applicable requirements of N.J.A.C. 7:28-1 through 11 and 13.

### 7:28-20.2 Definitions

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

“Direct supervision” means guidance and instruction by the qualified machine operator who is physically present, is watching the operation of the particle accelerator, and is available for immediate assistance.

“Electron microscope” means a machine that accelerates electrons for the purpose of producing highly magnified images of materials and material surfaces.

“kVp” means kilovolt peak.

“Particle accelerator” means any machine that accelerates charged particles (electrons, protons, deuterons, or other charged particles, etc.) in a vacuum and discharges the resulting particulate or other radiation but which does not meet the specifications of machines currently regulated under N.J.A.C. 7:28-14 through 16; particle accelerators include, but are not limited to, machines used for research, irradiation, or other purposes; such machines include, but are not limited to, potential-drop accelerators, electron linear accelerators, cyclotrons, betatrons, microtrons, ion implant accelerators, and electron microscopes; particle accelerators do not include high voltage generators, televisions, video display terminals, cathode ray tubes or other similar devices whose primary purpose is not the production of a useful charged particle beam.

“Particle accelerator facility” means the location at which one or more particle accelerators are installed and are operated under the same administrative control.

“Particle accelerator safety officer” or “PASO” means the person who is appointed and authorized by the registrant to act on the registrant’s behalf to implement and maintain the particle accelerator radiation protection program for the registrant’s facility.

“Performance test” means a procedure which is performed to assure that an instrument continues to perform its intended function.

“Qualified machine operator” means a person who meets the requirements of N.J.A.C. 7:28-20.6(a).

“Radiation protection committee” means a group consisting of at least three individuals appointed by the registrant who identify radiation safety problems, initiate, recommend, or provide corrective action plans, and verify the implementation of corrective actions. One member of this committee shall be the particle accelerator safety officer and one member shall be a representative of management. The remaining members shall be appointed at the discretion of the registrant.

“Scattered radiation” means radiation that, during passage through matter, has changed in direction or in energy.

“Stray radiation” means the sum of leakage and scattered radiation.

### 7:28-20.3 Registration requirements

A person shall not possess, control, use or cause a particle accelerator or an electron microscope to be used unless it has been registered with the Department pursuant to N.J.A.C. 7:28-3, unless the particle accelerator or electron microscope is incapable of operating at more than five kVp and does not produce radiation greater than 0.5 millirem per hour at any readily accessible point five centimeters from its surface.