

From: "Jenny Goodman" <Jenny.Goodman@dep.state.nj.us>
To: <DMS4@nrc.gov>, <mlo1@nrc.gov>
Date: 2/20/2008 10:27:51 AM
Subject: regs

Mistake corrected in this version. 12.15 still had remnants of minimization of contamination, which is now adopted by reference.

Mail Envelope Properties (47BC46E5.664 : 5 : 13924)

Subject: regs
Creation Date 2/20/2008 10:26:41 AM
From: "Jenny Goodman" <Jenny.Goodman@dep.state.nj.us>

Created By: Jenny.Goodman@dep.state.nj.us

Recipients

nrc.gov

TWGWPO03.HQGWDO01
 MLO1 (Monica Orendi)

nrc.gov

TWGWPO02.HQGWDO01
 DMS4 (Dennis Sollenberger)

Post Office

TWGWPO03.HQGWDO01
 TWGWPO02.HQGWDO01

Route

nrc.gov
 nrc.gov

Files	Size	Date & Time
MESSAGE	132	2/20/2008 10:26:41 AM
NJ Agreement State rule text.doc		1114624
Mime.822	1527090	

Options

Expiration Date: None
Priority: Standard
ReplyRequested: No
Return Notification: None

Concealed Subject: No
Security: Standard

Junk Mail Handling Evaluation Results

Message is eligible for Junk Mail handling
 This message was not classified as Junk Mail

Junk Mail settings when this message was delivered

Junk Mail handling disabled by User
 Junk Mail handling disabled by Administrator
 Junk List is not enabled
 Junk Mail using personal address books is not enabled

Block List is not enabled

SUBCHAPTER 1. GENERAL PROVISIONS

7:28-1.1 Purpose and scope

(a) (No change.)

(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 Department of Environmental Protection, and shall govern all persons installing, using, handling, transporting or storing sources of radiation.] This chapter applies to persons licensed or registered by the Department to receive, possess, use, transfer, or dispose of ionizing radiation producing machines, non-ionizing radiation producing sources, diffuse technologically enhanced naturally occurring radioactive materials, diffuse accelerator-produced radioactive materials, by-product, source, or certain special nuclear material or to operate a production or utilization facility under N.J.A.C. 7:28-51 through 56, 57, 58, 59, or 60. The limits in this chapter do not apply to doses due to background radiation, to exposure of patients to radiation for the purpose of medical diagnosis or therapy, to exposure from individuals administered radioactive material and released under N.J.A.C. 7:28-55.1, or to exposure from voluntary participation in medical research programs.

(c) The regulations in this Chapter establish standards for protection against ionizing radiation resulting from activities conducted under registrations or licenses issued by the Department.

(d) It is the purpose of the regulations in this Chapter to control the receipt, possession, use, transfer, and disposal of licensed material, ionizing radiation producing machines, or non-ionizing radiation producing sources by any licensee or registrant in such a manner that the total dose or exposure to an individual (including doses resulting from licensed and unlicensed radioactive material and from radiation sources other than background radiation) does not exceed the standards

for protection against radiation prescribed in the regulations in this chapter. However, nothing in this chapter shall be construed as limiting actions that may be necessary to protect health and safety.

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 the chapter, incorporated from 10 CFR 20, are located at NJAC 7:28-6. 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.)]

...

["ALARA" means "as low as is reasonably achievable," taking into account the state of technology and the economics of improvements in relation to benefits to the public health and safety, and other societal and socioeconomic considerations, and in relation to the utilization of radiation in the public interest.]

"Annually" means at intervals of not less than 51 consecutive weeks nor more than 53 consecutive weeks.

...

["Background radiation" means radiation from cosmic sources; naturally occurring radioactive material, including radon (except as a decay product of source, special nuclear material, or technologically enhanced naturally occurring radioactive material); and global fallout as it exists in

the environment from the testing of nuclear explosive devices or from past nuclear accidents such as Chernobyl that contribute to background radiation and are not under the control of the State licensee or licensee. "Background radiation" does not include radiation from source, byproduct, or special nuclear materials regulated by the U.S. Nuclear Regulatory Commission or from naturally occurring or accelerator produced radioactive materials regulated by the State.]

["Calendar quarter" means not less than 12 consecutive weeks nor more than 14 consecutive weeks. The first calendar quarter of each year shall begin in January and subsequent calendar quarters shall be so arranged that no day in any year is omitted from inclusion within a calendar quarter. For purposes of this chapter, no State licensee, licensee, radioactive materials registrant or registrant shall change the method observed by him of determining calendar quarters except at the beginning of a calendar year.]

...

["Controlled area" means any area to which the access, occupancy and activity of those within are subject to control and supervision for the purpose of radiation protection.]

...

["Dose equivalent" means a numerical quantity that expresses on a common scale for all ionizing radiation, a measure of the postulated effect on a given organ. It is defined as the absorbed dose in rads times certain modifying factors. The unit of dose is the Rem. (See "Rem" under (b) below).]

...

"Monthly" means at intervals of not less than four consecutive weeks nor more than five consecutive weeks.

...

["Occupational dose" means the dose received by an individual in the course of employment in which the individual's assigned duties involve exposure to radiation from a machine source or to radioactive material from State licensed and unlicensed sources of radiation, whether in the possession of the State licensee, licensee or other person. Occupational dose does not include dose received from background radiation, from any medical administration the individual has received, from exposure to individuals administered radioactive material and released in accordance with Federal regulations found in Title 10 Code of Federal Regulations, Part 35, section 75, or as a member of the public.]

...

["Person" includes an individual, corporation, partnership, firm, association, trust, estate, public or private institution, group, municipality, any state, or other legal entity; and any legal successor, representative agent, or agency of the foregoing.]

...

"Quarterly" means at intervals of not less than 12 consecutive weeks nor more than 14 consecutive weeks.

...

["Radiation area" means an area which is accessible to a worker and in which there exists ionizing radiation at such levels that a major portion of the body would receive in any one hour a dose equivalent in excess of five millirems or in any workweek a dose equivalent in excess of 100 millirems; or levels of nonionizing radiation which exceed the maximum permissible levels of such radiation as specified in the rules and standards established by the Commission.]

...

"Semi-annually" means at intervals of not less than 25 consecutive weeks nor more than 27 consecutive weeks.

...

["State license" means a license issued by the Department. See also "License" under (b) below.

"State licensee" means a person who is required to obtain a license from the Department pursuant to this chapter.

"Survey" means evaluation for a specific set of conditions or actual or potential radiation or contamination levels by or under the supervision of a qualified individual.]

...

"Weekly" means at intervals of not less than five consecutive days nor more than seven consecutive days.

(b) Ionizing radiation terms:

["Adult" means an individual 18 or more years of age.

"Airborne-radioactivity area" means an area accessible to workers, in which airborne radioactive materials are present in concentrations such that the values at any time are in excess of the respective values stated in *N.J.A.C. 7:28-6.5(a)* (Average concentrations) Column B, or prorated values if more than one isotope is present; or values if averaged over the hours of occupancy in any week are in excess of 25 percent of the respective foregoing values.]

...

["Byproduct material" means any radioactive material except special nuclear material yielded in, or made radioactive by, exposure to the radiation incident to the process of producing or utilizing special nuclear material.

"Collective dose" means the sum of the individual doses received in a given period of time by a specified population from exposure to a specified source of radiation.

"Committed dose equivalent" ($H[T,50]$) means the dose equivalent to organs or tissues of reference (T) that will be received from an intake of radioactive material by an individual during the 50-year period following the intake.

"Committed effective dose equivalent" ($H[E,50]$) means the sum of the products of the weighting factors applicable to each of the body organs or tissues that are irradiated and the committed dose equivalent to these organs or tissues ($H[E,50] = \sum w[T]H[T,50]$).

...

["Curie" means that amount of a specific radionuclide which disintegrates at the rate of 37 billion atoms per second.

i. The new International System of Units replaces "curie" with the "becquerel," which means that amount of a specific radionuclide which disintegrates at the rate of one atom per second. One curie equals 3.7×10^{10} becquerel.

"Declared pregnant woman" means a woman who has voluntarily informed the State licensee, radioactive materials registrant or registrant, in writing, of her pregnancy and the estimated date of conception. The declaration remains in effect until the declared pregnant woman withdraws the declaration in writing, or is no longer pregnant.

"Deep-dose equivalent" (H[d]), which applies to external whole-body exposure, means the dose equivalent at a tissue depth of one cm (1,000 mg/cm²).]

...

"Diffuse" means a radionuclide that has become concentrated, but not for the purpose of use in commercial, medical, or research activities.

"Domestic sewage" means waste and wastewater from humans or household operations that is discharged to or otherwise enters a treatment works.

"Domestic treatment works" or "DTW" means all publicly owned treatment works as well as any other treatment works processing primarily domestic sewage and pollutants together with any ground water, surface water, storm water or process wastewater that may be present.

["Dose or radiation dose" is a generic term that means absorbed dose, dose equivalent, effective dose equivalent, committed dose equivalent, committed effective dose equivalent, or total effective dose equivalent, as defined in other paragraphs of this section.

"Effective dose equivalent" (H[E]) means the sum of the products of the dose equivalent to the organ or tissue (H[T]) and the weighting factors (w[T]) applicable to each of the body organs or tissues that are irradiated ($H[E] = \sum w[T]H[T]$).

"High radiation area" means an area which is accessible to workers and in which there exists radiation at such levels that a major portion of the body could receive in any one hour a dose in excess of 100 millirem.]

...

["License," except where otherwise specified, means a license issued by the United States Nuclear Regulatory Commission or any state for possession and use of radioactive material. See also "State license" under (a) above.

"Licensee" means a person who is required to obtain a license from the U.S. Nuclear Regulatory Commission or any state other than New Jersey.

"Medical radiographer" means any individual who, under the supervision of a licensed practitioner, uses medical radiographic equipment on human beings for diagnostic or therapeutic purposes.

"Member of the public" means any individual except when that individual is receiving an occupational dose.

"Minor" means an individual less than 18 years of age.

"Monitoring" means a periodic or continuous determination of ionizing radiation levels or of radioactive contamination.]

"NARM" means any naturally occurring or accelerator produced radioactive material.]

...

["Public dose" means the dose received by a member of the public from exposure to radiation from a machine source or to radioactive material released by a State licensee, or to any other source of radiation under the control of a licensee. Public dose does not include occupational dose or doses received from background radiation, from any medical administration the patient has received, or from exposure to individuals administered radioactive material and released in accordance with Federal regulations found in 10 CFR 35, section 75.

"Rad" means the dose corresponding to the absorption of 100 ergs per gram: a measure of the dose of any radiation to body tissues in terms of the energy absorbed per unit mass of the tissue.

i. The new International System of Units replaces the "rad" with the "gray," which means the dose corresponding to the absorption of one joule per kilogram. One rad equals 1×10^{-2} gray.]

....

"Radioactive materials registrant" means a person who is required to register radioactive byproduct material, source material or special nuclear material with the Department pursuant to this chapter.

"Radiographer" means any individual who is in attendance at a site where ionizing radiation-producing machines [sources] are being used and who uses or supervises their use in industrial radiographic operations and who is responsible to the owner for assuring compliance with the requirements of this chapter.

"Radiographer's assistant" means any individual who, under the personal supervision of a radiographer, uses [sources of] ionizing [radiation including ionizing] radiation-producing machines, [radiographic-exposure devices, sealed sources or] related handling tools, or survey instruments in industrial radiography.

["Radiographic-exposure device" means any instrument containing a sealed source fastened or contained therein which the sealed source or shielding thereof may be moved or otherwise changed from a shielded to unshielded position for purposes of making a radiographic exposure.]

"Radiography" means the examination of humans or animals, or of the structure of materials by non-destructive methods, utilizing [sealed sources or] ionizing radiation-producing machines. This term is not intended to apply to techniques such as electron microscopy or x-ray diffraction.

["Reference man" means a hypothetical aggregation of human physical and physiological characteristics arrived at by international consensus. These characteristics may be used by researchers and public health workers to standardize results of experiments and to relate biological insult to a common base.]

"Registrant" means a person who is required to register an ionizing radiation-producing machine source of radiation with the Department pursuant to this chapter.

["Rem" means a measure of the dose of any ionizing radiation to body tissue in terms of its estimated biological effect relative to a dose of one rad of x-rays. For the purpose of this chapter, any of the following are considered to be equivalent to a dose of one rem:

- i. A dose of one rad due to x, gamma, or beta radiation;
- ii. A dose of 0.1 rad due to neutrons or high-energy protons;
- iii. A dose of 0.05 rad due to particles heavier than protons and with sufficient energy to reach the lens of the eye.

(1) The new International System of Units replaces the "rem" with the "sievert," which means a measure of the dose of any ionizing radiation to body tissue in terms of its estimated biological effect relative to a dose of one gray of x-rays. One rem equals 1×10^{-2} sievert.

(2) If it is more convenient to measure the neutron flux, or equivalent, than to determine the neutron dose in rads, as provided in ii above, one rem of neutron radiation may, for purposes of this chapter, be assumed to be equivalent to 14 million neutrons per square centimeter incident upon the body; or, if there exists sufficient information to estimate with reasonable accuracy the approximate distribution in energy of the neutrons, the incident number of neutrons per square centimeter equivalent to one rem may be estimated from the following table:

Neutron energy (MeV)	Number of neutrons per square centimeter equivalent to a dose of 1 rem (neutron/cm ²)	Average flux to deliver 100 milli-rem in 40 hours (neutrons/cm ² per sec.)
Thermal	970 x 10 ⁶	670
0.001	720 x 10 ⁶	500
0.005	820 x 10 ⁶	570
0.02	400 x 10 ⁶	280
0.1	120 x 10 ⁶	80
0.5	43 x 10 ⁶	30
1.0	26 x 10 ⁶	18
2.5	29 x 10 ⁶	20
5.0	26 x 10 ⁶	18
7.5	24 x 10 ⁶	17
10	24 x 10 ⁶	17
10 to 30	14 x 10 ⁶	10

"Residual" means a solid waste that consists of the accumulated solids and associated liquids which are by-products of a physical, chemical, biological, or mechanical process or any other process designed to treat wastewater or any other discharges subject to regulation under the New Jersey Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq., as amended. For purposes of this chapter, residual includes, but is not limited to, marketable residual product, sludge and sewage

sludge. Residual excludes screened vegetative waste and grit and screenings. The terms used in this definition shall have the same meaning as those in N.J.A.C. 7:14A-1.2.

"Roentgen" means the quantity of x or gamma radiation such that the associated corpuscular emission per .001293 grams of air produces, in air, ions carrying one electrostatic unit of quantity of electricity of either sign.

"Sanitary sewer system" means any device or system used in the storage and treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature which is owned by a State or municipality. This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a sanitary sewer system providing treatment. A synonym for sanitary sewer system is publicly owned treatment works (POTW).

"Sealed source" means a radioactive material that is permanently bonded or fixed in a capsule or matrix designed to prevent release and dispersal of the radioactive material under the most severe conditions which are likely to be encountered in normal use and handling.]

...

"Sewage Sludge" means the solid, semi-solid, or liquid residue generated by the processes of a domestic treatment works. Sewage sludge includes, but is not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and any material derived from sewage sludge.

...

["Source material" means uranium or thorium, or any combination thereof, in any physical or chemical form, or ores which contain by weight 1/20 of one percent (0.05 percent) or more of

uranium, thorium or any combination thereof. Source material does not include special nuclear material.

"Special nuclear material in quantities not sufficient to form a critical mass" means uranium enriched in the isotope U-235 in quantities not exceeding 350 grams of contained U-235; U-233 in quantities not exceeding 200 grams; plutonium (Pu) in quantities not exceeding 200 grams; or any combination of them in accordance with the following formula: for each kind of special nuclear material, determine the ratio between the quantity of that special nuclear material and the quantity specified above for the same kind of special nuclear material. The sum of such ratios for all the kinds of special nuclear material in combination shall not exceed "1," that is, unity as illustrated in the following example:

175 grams		50 grams		50 grams	
Contained					
U-235	+	U-233	+	Pu	= 1
350		200		200	

"Stochastic effects" means health effects that occur randomly and for which the probability of the effect occurring, rather than its severity, is assumed to be linear function of dose without threshold. Hereditary effects and cancer incidence are examples of stochastic effects.]

...

["Total effective dose equivalent" (TEDE) means the sum of the deep-dose equivalent (for external exposures) and the committed effective dose equivalent (for internal exposures).]

...

["Unrefined and unprocessed ore" means ore in its natural form prior to any processing, such as grinding, roasting, beneficiating, or refining.

"Unrestricted area" means an area, access to which is neither limited nor controlled by the State licensee or registrant.]

...

["Very high radiation area" means an area, accessible to individuals, in which radiation levels from radiation sources external to the body could result in an individual receiving an absorbed dose in excess of 500 rads (five grays) in one hour at one meter from a radiation source or one meter from any surface that the radiation penetrates. Note that at very high doses received at high dose rates, units of absorbed dose (for example, rads and grays) are appropriate, rather than units of dose equivalent (for example, rems and sieverts).]

...

["Weighting factor" ($w[T]$) for an organ or tissue (T) means the proportion of the risk of stochastic effects resulting from irradiation of that organ or tissue to the total risk of stochastic effects when the whole body is irradiated uniformly. For calculating the effective dose equivalent, the values of $w[T]$ are:

Organ Dose Weighting Factors

Organ or Tissue	$w[T]$
Gonads	0.25
Breast	0.15
Red bone marrow	0.12

Lung	0.12
Thyroid	0.03
Bone surfaces	0.03
Remainder	0.30 a
Whole Body	1.00 b

a 0.30 results from 0.06 for each of 5 "remainder" organs (excluding the skin and the lens of the eye) that receive the highest doses.

b For the purpose of weighting the external whole body dose (for adding it to the internal dose), a single weighting factor, $w[T] = 1.0$, has been specified.]

...

(c) (No change.)

7:28-1.5. Communications

(a) Communications concerning this chapter, or matters relating to radiation protection, may be directed to:

New Jersey Department of Environmental Protection
Radiation Protection and Release-Prevention Element

PO Box 415

Trenton, New Jersey 08625-0415

Telephone: (609) 984-5636

Fax: (609) 633-2210

The physical location of the office is 25 Arctic Parkway, Ewing, New Jersey 08638. Applications and forms may be obtained from the website at <http://www.state.nj.us/dep/rpp/index.htm>.

(b) All emergency notification of incidents involving sources of radiation in this State shall be immediately reported to either one of the following agencies:

1. Radiation Protection and Release Prevention Element

New Jersey Department of Environmental Protection

25 Arctic Parkway

Ewing, NJ 08638

Telephone: (609) 984-5462

Hours: 8:00 A.M. to 5:00 P.M. daily, except Saturday, Sunday, and Holidays

After hours and weekends: [609 292-7172 or] toll free: 1 (877) 927-6337 (1 (877) WARN-DEP)

2. (No change.)

SUBCHAPTER 2. USE OF SOURCES OF IONIZING RADIATION AND SPECIAL EXEMPTIONS

7:28-2.13 Violations

(a) The Department may obtain an injunction or other court order to prevent a violation of the provisions of:

1. The Act; or

2. A regulation or order issued pursuant to the Act.

(b) The Department may impose a civil penalty for a violation of:

1. Any provision of this chapter or order issued hereunder;
2. Any term, condition, or limitation of a license issued under this chapter; or
3. A revocation under N.J.A.C. 7:28-4, or under N.J.A.C. 7:28-51 through 60,

or under N.J.A.C. 7:28-63.

SUBCHAPTER 3. REGISTRATION OF IONIZING RADIATION-PRODUCING MACHINES [AND RADIOACTIVE MATERIALS]

7:28-3.1 Registration for possession of ionizing radiation-producing machines [and radioactive by-product material, source material and special nuclear material]

(a) Any person, manufacturer, dealer or State, county or local government shall register with the Department [all radioactive by-product material, source material, special nuclear material and] every ionizing radiation-producing machine possessed within the State of New Jersey except as exempted by N.J.A.C. 7:28-3.2.

(b) Any person, manufacturer, dealer or State, county or local government shall apply for such registration within 30 days after taking possession, custody or control of [radioactive by-product material, source material, special nuclear material and] ionizing radiation-producing machines on forms available from the Department.

(c) (No change.)

7:28-3.2 Exemptions from registration for possession of ionizing radiation-producing machines [and radioactive by-product material, source material and special nuclear material]

(a) - (c) (No change.)

[(d) Those radioactive materials covered in specific and general state licenses issued by the Department in accordance with N.J.A.C. 7:28-4 are exempt from registration.

(e) Those radioactive materials contained in devices which are covered under general license issued by the United States Nuclear Regulatory Commission or have been granted an exemption from licensing requirements by the United States Nuclear Regulatory Commission are exempt from registration.

(f) Quantities of radioactive material equal to or less than those listed in N.J.A.C. 7:28-3.11 are exempt from registration requirements provided that no individual user of radioactive material shall have more than 10 such quantities of any material or materials at any one time.]

7:28-3.5 [Registration of radioactive by-product material, source material and special nuclear material

(a) Any person having within his possession, custody or control any radioactive by-product material, source material or special nuclear material pursuant to a specific license issued by the United States Nuclear Regulatory Commission shall apply for and obtain a registration for possession, custody or control of the specified type(s) and amount(s) of such material as authorized by the license issued by the Nuclear Regulatory Commission. Application forms for the registration of radioactive material are available from the Department. When submitting an application, the applicant shall attach to the application a copy of the license issued by the Nuclear Regulatory Commission.

(b) A radioactive materials registrant does not have to apply for a new or amended registration for receipt of each shipment of a type of radioactive material for which it has a valid current registration provided that the total amount of such type of radioactive material in the radioactive materials registrant's possession, custody or control does not exceed the amount authorized in its registration for such type of material.

(c) Fees in the amounts indicated in N.J.A.C. 7:28-3.13 shall be paid for each initial registration application, each registration amendment and each annual registration renewal.

(d) Any registration issued for radioactive materials pursuant to this subchapter shall be valid for so long as the license issued by the United States Nuclear Regulatory Commission is in full force and effect.] (Reserved.)

7:28-3.6 Transfer of registration for [possession of radioactive by-product material, source material, special nuclear material and] ionizing radiation-producing machines

Registrations for [possession of radioactive by-product material, source material, special nuclear material and] ionizing radiation-producing machines are not transferable.

7:28-3.8 [Amendments to registration of radioactive by-product material, source material or special nuclear material

A radioactive materials registrant shall notify the Department in writing within 30 days after any change in the license issued by the Nuclear Regulatory Commission for possession, custody or control of any type of radioactive by-product material, source material or special nuclear material

when there is a change in the type and/or quantity of such material or when there is a change in the designated licensed user(s) or radiation safety officer.] (Reserved.)

7:28-3.10 Denial of an application for registration, and suspension, modification, or revocation of registration of ionizing radiation-producing machines[, radioactive by-product material, source material or special nuclear material]

(a) The Department, in addition to any penalties authorized by the Act, may deny an application for registration or suspend, modify or revoke a registration of ionizing radiation-producing machines[, radioactive by-product material, source material or special nuclear material] by reason of amendments to the Act, adoption of rules, orders issued by the Department pursuant to said Act or if the applicant, [radioactive materials registrant] or registrant:

1. Fails to comply with any provisions of the Act or any rules promulgated pursuant thereto including the timely payment of registration fees;
 2. Falsifies or makes misleading statements in the application for registration;
 3. Falsifies or makes misleading statements in any documents which were utilized to obtain a registration;
 4. Alters registration documents;
 5. Falsifies required records;
 6. Aids, abets, combines with, or conspires with any person for any purpose which will evade or be in violation of the provisions of the Act or any rules promulgated pursuant thereto;
- or

7. Allows a registration to be used by any person for any purpose which will evade or be in violation of the provisions of the Act or any rules promulgated pursuant thereto.

(b) (No change.)

(c) The Department may terminate a registration upon request submitted by the [radioactive materials registrant or] registrant to the Department in writing.

7:28-3.11 [Table of radioactive materials and quantities exempt from registration

(a) The following radioactive materials, in quantities less than or equal to those specified below, are exempt from registration:

Radioactive Material	Column A Not as a sealed source (microcuries)	Column B As a sealed source (microcuries)
Antimony (Sb 124)	1	10
...		
Zinc 65 (Zn 65)	10	10
Beta and/or Gamma emitting radioactive material not listed above	1	10]

(Reserved.)

[7:28-3.13 Fees for registration of radioactive by-product material, source material and special nuclear material

(a) Fees for initial registration, annual registration renewal and each registration amendment for possession, custody or control of radioactive by-product material, source material and special nuclear material as provided below shall be paid in full by the radioactive materials registrant.

1. Initial Registration Fee: \$250.00;
2. Annual Registration Renewal: \$165.00;
3. Each Amendment to Registration: \$165.00.

(b) Payment for each initial registration shall be made only by check or money order payable to "Treasurer, State of New Jersey" and shall be submitted with each initial registration application to the Department.

(c) Annual registration renewal fees payable to "Treasurer, State of New Jersey" shall be submitted to the Department annually no later than August 1 of each year.

(d) In the event that registration renewal fees are paid later than 30 days after August 1, a delinquency fee equal to one-half of the annual registration fee will be imposed. Failure to pay a registration renewal fee, including any accrued delinquency fees for longer than 90 days after August 1 shall constitute grounds for suspension or revocation of the registration pursuant to N.J.A.C. 7:28-3.10.

(e) Registration amendment fees shall be submitted with the amended registration.

(f) The initial registration fee, the annual renewal fee and registration amendment fee shall be mailed to:

State of New Jersey

Department of Treasury

Division of Revenue

PO Box 417

Trenton, New Jersey 08646-0417

(g) The registration year shall be July 1 of each year to June 30 of the following year.

(h) Fees submitted to the Department are non-refundable.]

SUBCHAPTER 4. LICENSING OF DIFFUSE NATURALLY OCCURRING OR DIFFUSE
ACCELERATOR PRODUCED RADIOACTIVE MATERIALS

7:28-4.1 Scope and general provisions

(a) This subchapter shall apply to persons who manufacture, produce, transfer, distribute or arrange for the distribution, sell, lease, receive, acquire, own, possess or use any diffuse naturally occurring or diffuse accelerator produced radioactive materials, including TENORM, in this State.

(b) No person shall manufacture, produce, transfer, distribute or arrange for the distribution, sell, lease, receive, acquire, own, possess or use any diffuse naturally occurring or diffuse accelerator produced radioactive materials, including TENORM, in this State unless authorized by a specific [State] license issued by the Department as provided by N.J.A.C. 7:28-4.7 and 4.8, a general [State] license as provided in N.J.A.C. 7:28-4.5, or an exemption as provided in N.J.A.C. 7:28-4.3. [Excepted from this provision are by-product, source and special nuclear materials.]

(c) A person who sells, transfers, distributes or arranges for the distribution of a device containing diffuse naturally occurring or diffuse accelerator produced radioactive materials

manufactured by another person, but which is sold, transferred or distributed under its own name, shall obtain a [State] license in accordance with this subchapter.

7:28-4.2 Recognition of licenses for diffuse NARM from other jurisdictions

(a) Any person who possesses a specific license or equivalent licensing document issued by a Federal agency or any other state is granted a general license in this State provided that the provisions of (b)1 through 4 below have been met.

(b) Any person who possesses a specific license or equivalent licensing document issued by a Federal agency or any other state may, pursuant to [such document] the general license in (a) above, transport, receive, possess, or use the radioactive materials specified in such license within this State for a period not in excess of [20] 180 days in any period of 12 consecutive months without obtaining a specific license from the Department provided that

1. (No change.)

2. The licensee notifies the Department in writing at least [two] three days prior to the time that such radioactive material is brought into this State. Such notification shall indicate the location, period, and type of proposed possession and use within this State, and shall be accompanied by a copy of the pertinent licensing document. If in a specific case the [two]three-day period would impose an undue hardship on the user, he may, upon application to the Department, obtain permission to proceed sooner;

3. - 4. (No change.)

[(b)] (c) The Department may withdraw, limit or qualify its acceptance of such licenses issued by another agency, or any product distributed pursuant to such licensing documents, upon

determining that such action is necessary in order to prevent undue hazard to public health and safety or property.

7:28-4.3 Exemption from requirement for a [State] license for manufacture, production, transfer, distribution or arrangement of distribution, sale, lease, receipt, acquisition, ownership, possession or use of all diffuse naturally occurring or diffuse accelerator produced radioactive materials

(a) A person shall be exempt from the requirement to obtain a [State] license for the following activities:

1. – 2. (No change.)

3. The person manufactures, produces, receives, possesses, uses, transfers, distributes or arranges for the distribution, sells, leases, owns or acquires products or materials containing diffuse naturally occurring or diffuse accelerator produced radioactive materials in concentrations not in excess of those exempted in N.J.A.C. 7:28-4.3(b);

[4. The person manufactures, receives, possesses, uses, transfers, distributes or arranges for the distribution, sells, leases, owns or acquires luminous timepieces or parts thereof containing radium. However, any person who desires to apply radium to luminous timepieces or parts thereof is not exempt and must obtain a specific State license;]

[5.] 4. (No change in text.)

[6.] 5. (No change in text.)

[7.] 6. (No change in text.)

[8.]7. The person owns a [sanitary sewer system] domestic treatment works where [residuals are] sewage sludge is present which may contain TENORM from the separation of liquids and solids which is the outcome of normal operations of the [sanitary sewer system] domestic treatment works;

[9.]8. (No change in text.)

[10.]9. The person owns property where residual contamination remaining at the site was remediated under the Radiation Protection Act (N.J.S.A. 26:2D-1 et seq.) and/or the other authorities listed in the Soil Remediation Standards at N.J.A.C. 7:28-12.2(a). Such residual concentrations may be greater than the limits specified in (a)[6]5 above, but be under restricted conditions imposed by the Department (such as engineering and institutional controls), and meet the dose criteria specified in N.J.A.C. 7:28-12.8[(a)].

(b) The following concentrations of [NARM] diffuse naturally occurring radioactive materials, including TENORM, and diffuse accelerator-produced radioactive materials, when obtained from naturally occurring materials or when produced by an accelerator are exempt from the requirements for a [State] license:

Exempt Concentrations

	Column 1	Column 2
	Gas concentration	Liq. & solid Concentration
Element (nuclide)	(uCi/ml)	(uCi/ml) ***[*]
Argon (Ar-37)	1 x 10<-3>	--
Arsenic (As-73)	--	5 x 10<-3>

(As-74)	--	5×10^{-4}
Barium (Ba-131)	--	2×10^{-3}
Beryllium (Be-7)	--	2×10^{-2}
Bismuth (Bi-206)	--	4×10^{-4}
(Bi-207) *	--	2×10^{-4}
Cadmium (Cd-109)	--	2×10^{-3}
Chromium (Cr-51)	--	2×10^{-2}
Cobalt (Co-56) *	--	1.2×10^{-4}
(Co-57)	--	5×10^{-3}
(Co-58)	--	1×10^{-3}
Dysprosium (Dy-159) *	--	4×10^{-3}
Fluorine (F-18)	2×10^{-6}	8×10^{-3}
Gallium (Ga-67) *	--	2×10^{-3}
Germanium (Ge-68) *	--	1.2×10^{-3}
(Ge-71)	--	2×10^{-2}
Gold (Au-196)	--	2×10^{-3}
(Au-199)	--	2×10^{-3}
Indium (In-111) *	--	1.2×10^{-3}
(In-113m)	--	1×10^{-2}
Iodine (I-123) *	4×10^{-7}	2×10^{-3}
(I-124) *	8×10^{-9}	4×10^{-5}
Iridium (Ir-190)	--	2×10^{-3}
(Ir-192)	--	4×10^{-4}

Iron (Fe-55)	--	8×10^{-3}
Krypton (Kr-85m)	1×10^{-6}	--
Lead (Pb-201) *	--	2×10^{-3}
(Pb-203)	--	4×10^{-3}
(Pb-210) *	--	2×10^{-7}
Manganese (Mn-52)	--	3×10^{-4}
(Mn-54)	--	1×10^{-3}
Mercury (Hg-197m)	--	2×10^{-3}
(Hg-197)	--	3×10^{-3}
Neptunium (Np-237) *	--	4×10^{-7}
Palladium (Pd-103)	--	3×10^{-3}
Platinum (Pt-191)	--	1×10^{-3}
(Pt-193m)	--	1×10^{-2}
(Pt-197m)	--	1×10^{-2}
Radium (Ra-226) *	--	1.2×10^{-6}
(Ra-228)	--	4×10^{-11}
Rhenium (Re-183)	--	6×10^{-3}
Rubidium (Rb-81) *	--	1×10^{-2}
(Rb-83) *	--	1.8×10^{-4}
(Rb-84) *	--	1.4×10^{-4}
Ruthenium (Ru-97)	--	4×10^{-4}
Samarium (Sm-153)	--	8×10^{-4}
Scandium (Sc-48)	--	3×10^{-4}

Silver (Ag-105)	--	1×10^{-3}
(Ag-111)	--	4×10^{-4}
Sodium (Na-22) *	--	1.2×10^{-4}
Tantalum (Ta-179) *	--	6×10^{-3}
Technetium (Tc-96)	--	1×10^{-3}
Thallium (Tl-200)	--	4×10^{-3}
(Tl-201)	--	3×10^{-3}
(Tl-202)	--	1×10^{-3}
** Thorium (Th-228) *	--	4×10^{-6}
(Th-230) *	--	2×10^{-6}
(Th-232) *	--	6×10^{-7}
(Th-234) *	--	1×10^{-4}
Thulium (Tm-170)	--	5×10^{-4}
Tungsten (Wolfram)	--	4×10^{-3}
(W-181)		
** Uranium (U-234) *	--	6×10^{-6}
(U-235) *	--	6×10^{-6}
(U-238) *	--	6×10^{-6}
Vanadium (V-48)	--	3×10^{-4}
Yttrium (Y-88) *	--	2×10^{-4}
(Y-92)	--	6×10^{-4}
Zinc (Zn-69m)	--	7×10^{-4}
Any other beta/gamma emitter with	1×10^{-10}	1×10^{-6}

half-life <3 years

* The values for those [NARM] diffuse naturally occurring radioactive materials [nuclides] and diffuse accelerator produced radioactive materials, including TENORM, that are followed by a single asterisk(*) are based upon multiplying 20 times the most restrictive release concentrations specified in 10 CFR 20 Appendix B, Table 2, Columns 1 (air) and 2 (water).

** These concentrations do not apply to source material [as defined by the NRC] for thorium and uranium.

*** uCi/g for solids

1. -2. (No change.)

(c) If a person manufactures, produces, transfers, distributes or arranges for the distribution, sells, leases, receives, acquires, owns, possesses or uses [NARM] diffuse naturally occurring radioactive materials or diffuse accelerator produced radioactive materials, including TENORM, in quantities less than those listed in N.J.A.C. 7:28-4.5(c), they are exempt from the requirement for a license.

7:28-4.4 Types of licenses for manufacture, production, transfer, distribution or arrangement for distribution, sale, lease, receipt, acquisition, ownership, possession or use of all diffuse naturally occurring or diffuse accelerator produced radioactive materials

(a) General [State] licenses described in N.J.A.C. 7:28-4.5 are effective without the filing of an application with the Department or the issuance of licensing documents to particular persons.

(b) Specific [State] licenses are issued to named persons upon application filed pursuant to the requirements of this subchapter.

7:28-4.5 General licenses for the transfer, distribution or arrangement for distribution, sale, lease, receipt, acquisition, ownership, possession or use of diffuse naturally occurring or diffuse accelerator produced radioactive materials and certain devices and equipment

(a) Any person who uses, transfers, distributes or arranges for the distribution, sells, leases, receives, acquires, owns or possesses the following devices and equipment incorporating diffuse naturally occurring or diffuse accelerator produced radioactive material, when manufactured, tested and labeled by the manufacturer in accordance with the specifications contained in a specific license issued by the Department, or a specific license of a Federal agency or any other state, shall be deemed to have a general [State] license:

1. – 3. (No change.)

(b) The devices described in (a) above shall not be transferred, abandoned or disposed of except by transfer to a person duly authorized to receive such device by a specific [State] license issued by the Department, a Federal agency, or any other state.

(c) The following quantities of radioactive substances, when obtained from diffuse naturally occurring materials or [when produced by an] diffuse accelerator produced radioactive materials, are generally licensed provided that no person shall at any one time possess or use more than a total of 10 such quantities:

Radioactive Material	Column A Not as a Sealed Source	Column B As a Sealed Source
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	(microcuries)	(microcuries)
Beryllium (Be-7)	50	50
Bismuth 207 (Bi-207)	1	10
Cadmium 109-Silver 109 (Cd 109 + Ag 109)	10	10
Cerium 141 (Ce-141)	1	10
Chromium 51 (Cr-51)	50	50
Cobalt 57 (Co-57)	20	20
Germanium 68 (Ge-68)	1	10
Iron 55 (Fe-55)	50	50
Manganese 52 (Mn-52)	1	10
Polonium 210 (Po-210)	0.1	1
Radium and daughters	0.1	1
Sodium 22 (Na-22)	10	10
Vanadium 48 (V-48)	1	10
Zinc 65 (Zn-65)	10	10
Beta and/or gamma emitting radioactive material not listed above	1	10

(d) - (e) (No change.)

(f) Persons who transfer, distribute or arrange for the distribution, sell, lease, receive, acquire, own, possess or use items and quantities of radioactive materials set forth in N.J.A.C. 7:28-4.5(a) and (c) pursuant to a general [State] license shall not:

1. - 4. (No change.)

(g) Persons who receive, acquire, possess or use a device pursuant to a general license specified in N.J.A.C. 7:28-4.5(a):

1. – 2. (No change.)

3. Shall have the device tested for leakage of radioactive material and proper operation of the on-off mechanism and indicator, if any, at intervals not to exceed six months [except that devices containing only tritium need not be tested for any purpose and devices containing only krypton need not be tested for leakage];

4. – 6. (No change.)

7. Shall be exempt from the requirements of this subchapter, except the provisions of N.J.A.C. 7:28-4.4(a), 4.9, 4.14, 4.[18]19, [8.2, 8.5, and 13]records of surveys, records of radioactive materials, and reports of theft, loss, or incidents pursuant to the requirements in N.J.A.C. 7:28-6, Standards for protection against radiation.

7:28-4.6 Application for and renewal of specific [State] licenses for manufacture, transfer, distribution or arrangement for distribution, sale, lease, receipt, acquisition, ownership, possession or use of diffuse naturally occurring or diffuse accelerator produced radioactive materials

(a) Upon approval of an initial or renewal application, a specific [State] license may be issued by the Department for a period of [five] ten years commencing on the date the license is issued.

(b) Application for specific [State] licenses and renewals shall be filed with the Department, on forms available from the Department.

(c) All applications shall contain the following signature and certification:

1. "I certify under penalty of law that the information provided in this document is true, accurate and complete. I am aware that there are significant civil and criminal penalties for submitting false, inaccurate or incomplete information, including fines and/or imprisonment."

2. The certification shall be signed by the highest ranking corporate, partnership, or governmental officer or official at the facility or the individual for which or for whom the specific [State] license is requested.

(d) An application for a specific [State] license may include a request for a [State] license authorizing one or more activities.

[(e) Subject to the provisions of N.J.A.C. 7:28-4.7 and 4.8, an application for a specific State license for any human use or uses of radioactive material specified in one or more of the Human Use activity Groups I to VI inclusive listed in N.J.A.C. 7:28-4.7(b) may be approved for all of the uses within the group or groups which include the use or uses specified in the application.]

[(f) (e) Information included in the specific [State] license application will be incorporated in and made a part of the terms and conditions of such license by reference.

[(g) (f) All applicants for initial and renewal applications for specific [State] licenses shall complete the application in its entirety with no reference to previously filed documents. The Department may accept photocopies of previous relevant applications.

[(h) (g) No initial or renewal specific [State] licenses shall be issued unless the appropriate annual license fee required by N.J.A.C. 7:28-[4.18]64 is paid.

[(i) (h) Except as provided in N.J.A.C. 7:28-4.[20]19, applications and documents submitted to the Department will be made available for public inspection.(No change.)

[(j) (i) Upon the request of the Department at any time after the filing of the original or renewal specific [State] license application, and before the expiration of the license, the applicant

shall submit further information to enable the Department to determine whether the application should be granted or denied or whether a license should be modified or revoked.

[(k)] (j) All applications for a [State] license or amendment shall be signed by the applicant or [State] licensee or a person duly authorized to act for and on his behalf.

[(l)] (k) The Department may deny an application for a specific [State] license if the applicant:

1. – 3. (No change.)

7:28-4.7 General requirements for approval of an application for an initial specific [State] license or renewal of a specific [State] license for use of diffuse naturally occurring or diffuse accelerator produced materials

(a) If the Department determines that an applicant meets the requirements of this subchapter and the Act, it may issue an initial specific [State] license or renew a specific [State] license for non-human use of radioactive materials provided:

1. – 3. (No change.)

[(b) If the Department determines that an applicant meets the requirements of this subchapter and the Act, it may issue an initial specific State license or renew a specific State license for human use of radioactive materials for one or more of the following Human Use Groups of activities:

1. Group I: Use of prepared radiopharmaceuticals for certain diagnostic studies involving measurements of uptake, dilution and excretion. This group does not include imaging or localization studies;

2. Group II: Use of prepared radiopharmaceuticals for diagnostic imaging and localization studies;
3. Group III: Use of generators and reagent kits for the preparation and use of radiopharmaceuticals for certain diagnostic studies;
4. Group IV: Use of prepared radiopharmaceuticals for certain therapeutic uses that do not normally require hospitalization for purposes of radiation safety;
5. Group V: Use of prepared radiopharmaceuticals for certain therapeutic uses that normally require hospitalization for purposes of radiation safety; and
6. Group VI: Use of sources and devices containing radionuclides for certain medical uses.

(c) To qualify for an initial specific State license or renewal of a specific State license for human use of radioactive materials for any purpose described in Groups I through VI in (b) above, the applicant must demonstrate qualification by reason of training and experience to use the radioactive material for the purpose requested and in such manner as to protect health, minimize danger to life or property, and prevent unnecessary radiation, by satisfying the training and experience requirements for the appropriate Human Use Group of activities as follows:

1. The training and experience must have been obtained within a five year period preceding the date of the application for an initial or renewal specific State license or must be supplemented by continuing education or experience. The original training and experience should have been received in a formal residency program in an accredited medical institution. Each applicant's training and experience are examined on a case-by-case basis. If an applicant wishes to use radiopharmaceuticals but does not have the training and experience described, the applicant

may submit an application listing specific qualifications and these will be considered by the Department.

2. To qualify as adequately trained to use or directly supervise the use of radioactive material listed in Human Use Groups I, II, and/or III, an applicant shall have all the training and experience specified in (c)2i, ii and iii below;

i. Two hundred hours training in basic radioisotope handling techniques applicable to the use of unsealed sources. This training shall consist of lectures, laboratory sessions, discussion groups, or supervised experience in a nuclear medicine laboratory (that is, on-the-job training in a formalized training program) in the following areas and for the specific hours of class, laboratory or clinical experience:

(1) Radiation physics and instrumentation (100 hours);

(2) Radiation protection (30 hours);

(3) Mathematics pertaining to the use and measurement of radioactivity (20 hours);

(4) Radiation biology (20 hours); and

(5) Radiopharmaceutical chemistry (30 hours);

ii. Five hundred hours of experience with the types and quantities of radioactive material for which the application is being made. For authorization of Human Use Group III (generators and reagent kits), this experience shall include personal participation in five elution procedures, including testing of eluate, and in five procedures to prepare radiopharmaceuticals from Human Use Group III reagent kits; and

iii. Five hundred hours of supervised clinical training in an institutional nuclear medicine program. The clinical training shall cover all appropriate types of diagnostic procedures and shall include:

(1) Supervise examination of patients to determine the suitability for radioisotope diagnosis and recommendation on dosage to be prescribed;

(2) Collaboration in calibration of the dose and the actual administration of the dose to the patient, including calculation of the radiation dose, related measurement, and plotting data;

(3) Follow-up of patients when required; and

(4) Study and discussion with preceptor of case histories to establish most appropriate diagnostic procedures, limitation, contraindication, etc.

3. The requirements specified in (c)2i, ii and iii above may be satisfied concurrently in a three month training program if all three areas are integrated into the program.

4. Certification by the American Board of Nuclear Medicine, or the American Board of Radiology in Diagnostic Radiology with Special Competence in Nuclear Radiology, will be accepted as evidence that an applicant has had adequate training and experience to use Human Use Groups I, II, and III as specified in (c)2i, ii and iii above.

5. An applicant who wishes to be authorized for only one or two specific diagnostic procedures shall have training in basic radioisotope handling techniques and clinical procedures commensurate with the procedures and quantities of radioactive material being requested. Such requests will be examined on a case-by-case basis by the Department.

6. To qualify as adequately trained to use or directly supervise the use of radioactive material listed in Groups IV and or V, an applicant shall have:

i. Eighty hours training in basic radioisotope handling techniques applicable to the use of unsealed sources for therapy procedures, consisting of lectures, laboratory sessions, discussion groups or supervised experience in the following areas and for the following specific hours:

(1) Radiation physics and instrumentation (25 hours);

(2) Radiation protection (25 hours);

(3) Mathematics pertaining to the use and measurement of radioactivity (10 hours); and

(4) Radiation biology (20 hours);

7. To qualify as adequately trained to use or directly supervise the use of radioactive material listed in Group VI an applicant shall have:

i. Two hundred hours training in basic radioisotope handling techniques applicable to the use of sealed sources for therapy procedures, consisting of lectures, laboratory sessions, discussion groups, or supervised experience in the following areas and for the following specified hours:

(1) Radiation physics and instrumentation (110 hours);

(2) Radiation protection (40 hours);

(3) Mathematics pertaining to the use and measurements of radioactivity (25 hours); and

(4) Radiation biology (25 hours);

ii. Five hundred hours experience with the types and quantities of radioactive material for which the application is made;

iii. Clinical training in Group VI procedures consisting of active practice in therapeutic radiology with a minimum of three years experience of which at least one year shall have been spent in a formal training program accredited by the Residency Review Committee of Radiology and the Liaison Committee on Graduate Medical Education; and

iv. Evidence of certification by the American Board of Radiology in Radiology or Therapeutic Radiology, certification as a British "Fellow of the Faculty of Radiology" (FFR) or "Fellow of the Royal College of Radiology" (FRCR), or Canadian certification from the Royal College of Physicians and Surgeons (RCPS) in therapeutic radiology may be submitted in lieu of the training required in (c)7i and iii above.

8. In addition to the training required by (c)7 above, an applicant for a specific State license for Human Use Group VI activities shall demonstrate that its proposed equipment, facilities and procedures are adequate to protect health, minimize danger to life or property and prevent unnecessary radiation; and

9. An applicant for a specific State license for Human Use Group VI activities shall satisfy special requirements as may be applicable in N.J.A.C. 7:28-4.8.]

7:28-4.8 Special requirements for approval of an application for an initial specific [State] license or renewal of a specific [State] license for use of diffuse naturally occurring or diffuse accelerator produced radioactive materials

[(a) If the Department determines that an applicant meets the requirements of this subchapter and the Act, an initial specific State license or renewal of a specific State license may be issued for human use of radioactive materials by an institution provided:

1. The applicant satisfies the general requirements for approval of specific State license applications in N.J.A.C. 7:28-4.7;

2. The applicant has appointed a medical isotopes committee to evaluate all proposals for research, diagnosis, and therapeutic use of radioactive material within that institution. Membership of the committee shall include one authorized user for each type of use permitted by the specific State license, the radiation safety officer, a representative of the nursing service, and a representative of management who is neither an authorized user nor a radiation safety officer;

3. The applicant possesses adequate facilities for the clinical care of patients;

4. The physician(s) designated on the application as the individual user(s) has considerable pertinent training and experience in the use, handling and administration of radioactive material and, where applicable, the clinical management of radioactive patients; and

5. If the application is for a specific State license to use unspecified quantities of multiple types of radioactive materials, the applicant's staff has had substantial pertinent experience in using a variety of radioactive materials for various human uses.

(b) If the Department determines that an applicant meets the requirements of this subchapter and the Act, an initial specific State license or renewal of a specific State license may be issued for human use of radioactive materials by a physician or dentist provided:

1. The applicant satisfies the general requirements for approval of specific State license applications in N.J.A.C. 7:28-4.7;

2. The applicant has access to a hospital possessing adequate facilities to hospitalize and monitor the applicant's radioactive patient whenever it is advisable; and

3. The applicant has had extensive training and supervised experience in the proposed use, the handling and administration of radioisotopes and, where applicable, the clinical

management of radioactive patients. The applicant shall furnish suitable evidence of such experience with his application. A statement from the institution where the applicant acquired the training and experience, indicating its amount and nature, may be submitted as evidence of such experience.

(c) If the Department determines that an applicant meets the requirements of this subchapter and the Act, an initial specific State license or renewal of a specific State license may be issued for human use of a sealed source of radioactive materials provided:

1. The applicant satisfies the general requirements for approval of specific State license applications in N.J.A.C. 7:28-4.7;

2. The applicant or, if the application is made by an institution, the individual user(s) has specialized training in therapeutic use of the radioactive device considered or has experience equivalent to such training; and

3. The individual user is a physician or dentist.]

[(d)] (a) If the Department determines that an applicant meets the requirements of this subchapter and the Act, an initial specific [State] license or renewal of a specific [State] license may be issued for use of multiple quantities or types of radioactive material [in research and development] provided:

1. The applicant satisfies the general requirements for approval of specific [State] license applications in N.J.A.C. 7:28-4.7;

2. – 4. (No change.)

[(e)] (b) If the Department determines that an applicant meets the requirements of this subchapter and the Act, an initial specific [State] license or renewal of a specific [State] license may

be issued for use of multiple quantities or types of radioactive material in processing for distribution to other authorized persons provided:

1. The applicant satisfies the general requirements for approval of specific [State] license application in N.J.A.C. 7:28-4.7;

2. – 3. (No change.)

[(f)] (c) If the Department determines that an applicant meets the requirements of this subchapter and the Act, an initial specific [State] license or renewal of a specific [State] license may be issued to distribute certain devices to persons generally licensed under N.J.A.C. 7:28-4.5(a) and (e) provided:

1. The applicant satisfies the general requirements for approval of specific [State] license applications in N.J.A.C. 7:28-4.7;

2. The applicant submits sufficient information relating to the design, manufacturer prototype testing, quality control procedures, labeling, proposed uses and potential hazards of the device to provide reasonable assurance that:

i. (No change.)

ii. No person possessing, using, transporting or exposed to the device will receive a radiation dose to a major portion of his body in excess of [0.5] 0.1 rem in any one year under ordinary circumstances of use;

iii.-iv. (No change.)

3. (No change.)

[(g) If the Department determines that an applicant meets the requirements of this subchapter and the Act, an initial specific State license or renewal of a specific State license may be

issued for use of a sealed source or sources of radioactive materials in industrial and nonmedical radiography provided:

1. The applicant satisfies the general requirements for approval of specific State license applications in N.J.A.C. 7:28-4.7;

2. The applicant has an adequate program for training radiographers and radiographers' assistants and submits to the Department a schedule or description of such program which specifies the following:

i. Initial training;

ii. Periodic training;

iii. On-the-job training;

iv. Means to be used by the specific [State] licensee to determine the radiographer's knowledge and understanding of and ability to comply with the requirements of this subchapter, the specific licensing requirements, and the operation and emergency instructions of the applicant; and

v. Means to be used by the specific State licensee to determine the radiographer's assistant's knowledge and understanding of and ability to comply with the operating and emergency procedures of the applicant;

3. The applicant has established and submitted to the Department satisfactory written operating and emergency instructions as prescribed by N.J.A.C. 7:28-17;

4. The applicant will have an adequate internal inspection system, or other management control, providing assurance that the requirements of this chapter, the specific State license provisions, and the applicant's operating and emergency instructions are followed by radiographers and radiographers' assistants;

5. The applicant submits a description of its overall organizational structure pertaining to the radiography program, including specified delegation of authority and responsibility for operation of the program; and

6. The applicant who desires to conduct his own leak tests has established adequate procedures to be followed in leak testing sealed sources for possible leakage and contamination and submits to the Department a description of such procedures, including:

- i. Instrumentation to be used;
- ii. Method of performing test (for example, points on equipment from where wipe samples will be taken and method of obtaining the wipe sample); and
- iii. Pertinent experience of the person who will perform the test.]

[(h)] (d) If the Department determines that an applicant meets the requirements of this subchapter and the Act, an initial specific [State] license or renewal of a specific [State] license will be issued to transfer, possess, or control products or materials containing exempt concentrations of radioactive material specified in N.J.A.C. 7:28-4.3(b) which the transferor has introduced into the product or material provided:

1. The applicant satisfies the general requirements for approval of specific [State] license applications in N.J.A.C. 7:28-4.7;
2. -3. (No change.)
4. Within 30 days subsequent to the end of the reporting period, each specific [State] licensee shall file an annual report with the Department describing kinds and quantities of products transferred, the concentration of radioactive material contained and the quantity of radioactive material transferred during the reporting period which shall be the 12-month period ending June 30 of each calendar year.

[(i) If the Department determines that an applicant meets the requirements of this subchapter and the Act, an initial specific State license or renewal of a specific State license may be issued to distribute certain devices to persons specifically licensed under N.J.A.C. 7:28-4.7 provided:

1. The applicant satisfies the general requirements for approval of specific State license applications in N.J.A.C. 7:28-4.7;

2. The applicant submits sufficient information relating to the design, manufacture, prototype testing, quality control procedures, labeling, proposed uses and potential hazards of the device to provide reasonable assurance that:

i. The radioactive material contained in the device cannot be easily removed;

ii. The device can be safely operated by persons having trained in radiological protection; and

iii. The radioactive material within the device would not be accessible to unauthorized persons; and

3. Each device distributed as authorized by such specific State license is to bear a label containing the following or substantially similar statements:

i. "Caution: Radioactive Materials";

ii. The isotope name;

iii. The isotope quantity and date; and

iv. The following statement:

"This device contains radioactive material and has been manufactured for distribution as a specifically State licensed device pursuant to

.....

(identify appropriate section of the regulation)

.....
(name of licensing agency and state)

License No. by(name of supplier)

Disposal of this device shall conform to the requirements listed in N.J.A.C. 7:28-4.5(g)6ii of the Radiation Protection Code. Removal of this label is prohibited."]

7:28-4.9 Terms and conditions of general and specific [State] licenses

(a) Each [State] license issued pursuant to this subchapter shall be subject to all the provisions of the Act, now or hereafter in effect, and to this chapter and orders of the Department.

(b) No [State] license to possess or utilize radioactive material pursuant to this subchapter shall be transferred or assigned.

(c) Each person licensed by the Department pursuant to this subchapter shall confine his or her possession and use of radioactive material to the locations and purposes authorized by such [State] license, and shall not use or permit the use of radioactive materials contrary to the applicable requirements of this chapter. Persons licensed under the provisions of this subchapter may transfer radioactive material within the State only to the persons licensed to receive such material or as otherwise authorized by the Department in writing.

(d) The Department may incorporate in any [State] license at the time of issuance, or thereafter, all such additional requirements and conditions with respect to the [State] licensee's manufacture, distribution or arrangement for the distribution, sale, lease, receipt, possession, use,

ownership or transfer of radioactive material as it deems appropriate or necessary in order to assure compliance with this chapter and the Act.

(e) Each [State] licensee authorized under N.J.A.C. 7:28-4.8[(f)] (c) to distribute certain devices to generally licensed persons shall:

1. (No change.)

2. Furnish to each general licensee to whom such device is transferred a copy of N.J.A.C. 7:28-4.5(a), (e) and (g), records of surveys and records of radioactive materials pursuant to the requirements in N.J.A.C. 7:28-6, Standards for protection against radiation.

8.[2]3 and 8.[4]5.

[(f) Each State licensee authorized under N.J.A.C. 7:28-4.8(i) to distribute certain devices to specifically licensed persons shall:

1. Report to the Department all transfers of such devices to persons in New Jersey specifically licensed under N.J.A.C. 7:28-4.7 and 4.8. Such report shall identify each specific licensee by name and address, the type and number of device(s) transferred, and the quantity and kind of radioactive material contained in each device. The report shall be submitted within 30 days after the end of each calendar quarter in which such a device is transferred to specifically licensed persons.]

7:28-4.10 Expiration of specific [State] license

Except as provided in N.J.A.C. 7:28-4.11, each specific [State] license shall expire at 12:01 A.M. of the day, in the month and year stated in the license.

7:28-4.11 Status of specific [State] licenses pending renewal

In any case in which a specific [State] licensee has filed a complete application in proper form for renewal of a specific [State] license not less than 30 days prior to expiration of the existing specific [State] license, such specific [State] license and all its existing conditions shall not expire until the Department has acted upon the application.

7:28-4.12 Amendment of a specific [State] license at request of licensee

(a) Applications for amendment of a specific [State] license shall be filed in accordance with N.J.A.C. 7:28-4.6 and shall specify the amendment desired and the grounds for such amendment.

(b) The Department will evaluate only amendment applications submitted by personnel authorized by the [State] licensee.

(c) The applicant for an amended specific [State] license shall not engage in the activities for which an amendment has been requested until approval has been granted by the Department.

7:28-4.13 Records

All persons licensed pursuant to this subchapter shall keep records in accordance with N.J.A.C. 7:28-[8, Records] 6, Standards for protection against radiation.

7:28-4.14 Inspections

(a) All [State] licensees shall allow the Department or its agents to inspect radioactive material and the facilities and premises where radioactive material is used or stored.

(b) (No change.)

(c) Upon request by the Department, or its agents, [State] licensees shall make available for inspection by the Department records kept pursuant to this chapter.

7:28-4.15 Tests

(a) At the request of the Department or its agents, each [State] licensee shall perform, or allow the Department to perform if the Department so desires, such tests as the Department deems appropriate or necessary for the administration of this subchapter, including tests of the following:

1. – 4. (No change.)

7:28-4.16 Financial assurance and recordkeeping for decommissioning

(a) Except as set forth in (b) below, this section incorporates by reference 10 CFR 30.35 and related Appendices, as supplemented or amended.

(b) The following provisions of 10 CFR 30.35, as supplemented or amended are incorporated by reference with the specified changes:

1. "Unsealed byproduct material" and "byproduct material" shall mean "diffuse NARM."

2. "Commission," "Nuclear Regulatory Commission," "U.S. Nuclear Regulatory Commission," and "NRC," shall mean "Department of Environmental Protection;"

3. 10 CFR 30.35(g), replace "Each person licensed under this part or parts 32 through 36 and 39" with "Each person licensed under this subchapter;"

4. 10 CFR 30.35(g), replace "in accordance with §30.34(b)," with "in accordance with N.J.A.C. 7:28-4.9;" and

5. 10 CFR 30.35(g)(3)(iv), replace "to meet the criteria for decommissioning in 10 CFR part 20, subpart E," with "to meet the criteria for decommissioning in N.J.A.C. 7:28-12."

7:28-4.[16]17 Modification, revocation, suspension, and termination of general and specific [State] licenses

(a) Each general [State] license shall be subject to modification, suspension or revocation by reason of amendments to the Act, adoption of rules by the Commission or the Department, orders issued by the Department pursuant to authority of the Act, or for violation or failure to observe any of the terms and provisions of the Act, [State] license or any rule of the Commission or the Department, or order of the Department.

(b) Each specific [State] license shall be subject to modification, suspension or revocation by reason of:

1. – 3. (No change.)
4. Conditions revealed by the application for a specific [State] license or statement of fact or any report, records or inspection or other means which would warrant the Department to refuse to grant a specific [State] license on an original application;
5. Violation of or failure to observe any of the terms and provisions of the Act or the [State] license, or any rule of the [Commission or] Department or order of the Department;
6. Falsification or misleading statements in any [State] license application;
7. Alteration of [State] licensing document;
8. (No change.)

9. Failure to make timely payment of [State] licensing fees.

(c) If a specific [State] license is not to be renewed or if a [State] licensee requests a termination of its [State] license, the [State] licensee shall furnish to the Department, prior to the expiration date of the [State] license, close-out surveys, wipe tests and/or soil samples demonstrating that the facility meets the requirements of N.J.A.C. 7:28-12. The facility shall also provide a disposition certificate attesting to the disposal of radioactive material.

7:28-4.[17]18 Requests for an adjudicatory hearing

(a) When the Department denies an initial application for or renewal of a specific [State] license, or determines to modify, revoke, suspend or terminate a general or specific [State] license, the Department shall send a notice of decision to the applicant or licensee by certified mail return receipt requested. The notice shall advise the applicant or licensee of the right to request a contested case hearing pursuant to the Administrative Procedure Act, N.J.S.A. 52:14B-1 et seq. and the New Jersey Uniform Administrative Procedure Rules, N.J.A.C. 1:1-1 et seq. The notice shall include the following information:

1. – 3. (No change.)

4. The requirements for requesting a stay under N.J.A.C. 7:28-4.[18]19.

(b) - (d) (No change.)

7:28-4.[18]19 Requirements governing requests for stay of the effective date of the Department decision for which an adjudicatory hearing is requested

(a)-(f) (No change.)

[7:28-4.19 Specific State license fee schedule for the manufacture, production, transfer, distribution or arrangement for distribution, sale, lease, receipt, acquisition, ownership, possession or use of naturally occurring or accelerator produced radioactive material

(a) The specific State license fee schedule is as follows:

Category	Annual License Fee
1. Radioactive materials license for Human Use Group	
I:	
i. Possession of material only;	\$ 350.00
ii. Administration of less than 10 doses per year;	\$ 500.00
iii. Administration of 10 through 49 doses per year;	\$ 650.00
iv. Administration of 50 or more doses per year.	\$ 850.00
2. Radioactive materials license for Human Use Group	
II:	
i. Possession of material only;	\$ 350.00
ii. Administration of less than 200 doses per year;	\$ 650.00
iii. Administration of between 200 and 1,499 doses per year:	\$ 1,300.00
iv. Administration of 1,500 or more doses per	\$ 2,000.00

year.

3. Radioactive materials license for Human Use Group

III:

- | | | |
|------|--|-----------|
| i. | Possession of material only; | \$ 350.00 |
| ii. | Administration of less than 200 doses per
year; | \$ 350.00 |
| iii. | Administration of 200 through 999 doses per
year; | \$ 650.00 |
| iv. | Administration of 1,000 or more doses per
year. | \$ 850.00 |

4. Radioactive materials license for Human Use Group

IV:

- | | | |
|------|--|-----------|
| i. | Possession of material only; | \$ 350.00 |
| ii. | Administration of less than 10 doses per
year; | \$ 500.00 |
| iii. | Administration of 10 through 49 doses per
year; | \$ 650.00 |
| iv. | Administration of 50 or more doses per year. | \$ 850.00 |

5. Radioactive materials license for Human Use Group

V:

- | | | |
|-----|---|-----------|
| i. | Possession of material only; | \$ 350.00 |
| ii. | Administration of less than 10 doses per
year; | \$ 500.00 |

iii.	Administration of 10 through 49 doses per year;	\$ 650.00
iv.	Administration of 50 or more doses per year.	\$ 850.00
6.	Radioactive materials license for Human Use Group VI:	
i.	Possession of material only;	\$ 850.00
ii.	Administration of less than 10 doses per year;	\$ 1,000.00
iii.	Administration of 10 through 49 doses per year;	\$ 1,150.00
iv.	Administration of 50 or more doses per year.	\$ 1,300.00
7.	Radioactive material license for commercial manufacture, processing and/or distribution of radioactive materials for Human Use.	\$ 4,950.00
8.	Radioactive materials license for commercial manufacture, processing and/or distribution of radioactive materials.	\$ 4,950.00
9.	Radioactive materials license for radioactive materials as sealed sources used for calibration and quality control purposes with a possession limit of 10 mCi or less.	\$ 1,000.00
10.	Radioactive materials license for radioactive materials, as sealed sources used for calibration	\$ 1,650.00

and quality control purposes with a possession limit greater than 10 mCi.

- | | | |
|-----|--|-------------|
| 11. | Radioactive materials license for radioactive materials as sealed sources contained in devices used for analytical purposes with a possession limit of one mCi or less. | \$ 850.00 |
| 12. | Radioactive materials license for radioactive materials, except radium-226, as sealed sources, contained in devices used for analytical purposes with a possession limit greater than one mCi but less than or equal to 300 mCi: | |
| | i. A government body, department, agency, authority, or any other unit of any state, Federal, county or local government using X-ray fluorescence devices for lead paint Analysis | \$ 200.00 |
| | ii. All others | \$ 1,250.00 |
| 13. | Radioactive materials license for radioactive materials, except radium-226, as sealed sources, contained in devices used for analytical purposes with a possession limit of greater than 300 mCi. | \$ 1,650.00 |
| 14. | Radioactive materials license for radioactive Radium-226, as sealed sources, contained in | \$ 1,650.00 |

Devices used for analytical purposes with possession limit greater than one mCi but less than or equal to 50 mCi.

- | | | |
|-----|---|-------------|
| 15. | Radioactive materials license for radioactive Radium-226, as sealed sources, contained in Devices used for analytical purposes with a possession limit greater than 50 mCi. | \$ 2,500.00 |
| 16. | Radioactive materials license for radioactive materials as sealed sources for Non-Medical Industrial Radiography. | \$ 3,300.00 |
| 17. | Radioactive materials license for radioactive materials not as sealed sources with a possession limit of 500 mCi or less. | \$ 2,500.00 |
| 18. | Radioactive materials license for radioactive materials not as sealed sources with a possession limit of greater than 500 mCi. | \$ 3,300.00 |

(b) All State licensees shall pay the fees set forth in (a) above by check payable to "Treasurer, State of New Jersey" prior to August 1 of each year.

1. In the event that the fees are paid after August 1, a delinquency fee equal to one-half of the annual State license fee will be imposed. Failure to pay an annual State license fee including any accrued delinquency fees for longer than 90 days after August 1 shall constitute grounds for suspension or revocation of the State license pursuant to N.J.A.C. 7:28-4.16.

2. The annual State license fee shall be mailed to:

State of New Jersey
Department of Environmental Protection
Bureau of Revenue
428 East State Street
PO Box 420
Trenton, New Jersey 08625-0420

(c) Facilities for which multiple State license categories apply shall be charged the sum of the fees for each of the applicable categories.

(d) The term "doses per year" when used in (a) above means the number of doses of radioactive materials within a category that are administered during the period July 1 to June 30.

(e) The term "human use group" when used in (a) above includes the use of radioactive material for calibration and quality control procedures as well as the administration of radioactive materials to humans.

(f) Fees submitted to the Department are non-refundable.]

SUBCHAPTER 5. CONTROLLED AREAS FOR REGISTRANTS

7:28-5.1 Areas [which must be controlled] that registrants must control

(a) [Except as provided in (b) below, e]Every area in which there is any reasonable possibility of an occupant receiving an exposure dose from radiation [and radioactive material] more than the dose specified in N.J.A.C. 7:28-6 for radiation levels outside a controlled area shall be set apart as a

controlled area by any person having possession, custody or control of any ionizing radiation-producing machine [and/or radioactive material].

[(b) All outgoing or incoming shipments of radioactive material shall be transported in conformance with all pertinent U.S. Department of Transportation regulations.]

7:28-5.2 Limitations on controlled areas for registrants

(No change.)

7:28-5.3. Precautionary procedures

(a) Any person having possession, custody or control of any ionizing radiation-producing machine [and/or radioactive material] shall comply with the following precautionary procedures:

1. Area surveys shall be performed in controlled areas and in adjacent areas to insure that exposure levels to individuals conform to N.J.A.C. 7:28-6. The surveys shall be performed in accordance with N.J.A.C. 7:28-7, Radiation Surveys and Personnel Monitoring for Registrants.

[2. Wipe tests shall be performed in areas where unsealed sources are routinely used to insure compliance with the requirements for radioactive contamination control in N.J.A.C. 7:28-9. The wipe tests shall be performed in accordance with N.J.A.C. 7:28-7.]

[3. Personnel surveys shall be performed and documented to insure compliance with N.J.A.C. 7:28-9.]

[4]2. All individuals entering a controlled area shall wear personnel monitoring equipment pursuant to the requirements for the use of personnel monitoring equipment in N.J.A.C. 7:28-7.

[5]3. Proper and adequate instruction shall be given to all personnel working in controlled areas in the use of necessary safeguards and procedures, and they shall be supplied with such safety devices as may be required.

[6]4. Adequate instructions or an escort shall be provided to all personnel frequenting or visiting controlled areas as shall be necessary to prevent unnecessary exposure.

[7]5. The area shall be posted in accordance with N.J.A.C. 7:28-10.

[7:28-5.4 Termination of controlled areas

Before an area where radioactive materials had been stored, utilized or generated can be reclassified as an uncontrolled area, surveys shall be performed and documented to ensure compliance with N.J.A.C. 7:28-6 for radiation levels outside of controlled areas. Wipe tests shall be performed and documented in areas where unsealed sources had been used or generated.]

SUBCHAPTER 6. STANDARDS FOR PROTECTION AGAINST RADIATION

7:28-6.1 Incorporation by reference

(a) Except as set forth in (b) and (c) below, this subchapter incorporates by reference 10 CFR Part 20, as supplemented or amended.

(b) The Department does not regulate nuclear reactors, special nuclear materials in quantities sufficient to form a critical mass, high-level waste disposal facilities, or byproduct material defined in Section 11e(2) of the Atomic Energy Act of 1954, as amended.

(c) Insofar as the incorporated rules refer to these facilities and/or materials, they do not apply. The following provisions of 10 CFR Part 20 are not incorporated by reference. If there is a cross reference to a Federal citation specifically entirely excluded from incorporation, then the cross referenced citation is not incorporated by virtue of the cross reference:

1. 10 CFR 20.1001, Purpose;
2. 10 CFR 20.1002, Scope;
3. 10 CFR 20.1003, Definitions, the following definitions are not incorporated by reference: "act," "Commission," "Department," and "sanitary sewer system."
4. 10 CFR 20.1007, Communications;
5. 10 CFR 20.1009, Implementation collection requirements: OMB approval;
6. 10 CFR 20.1401, General Provisions and Scope;
7. 10 CFR 20.1402, Radiological criteria for unrestricted use;
8. 10 CFR 20.1403, Criteria for license termination under restricted conditions;
9. 10 CFR 20.1404, Alternate criteria for license termination;
10. 10 CFR 20.1405, Public notification and public participation;
11. 10 CFR 20.2301, Application for exemptions;
12. 10 CFR 20.2401, Violations; and
13. 10 CFR 20.2402, Criminal penalties.

(d) The following provisions of 10 CFR Part 20, as supplemented or amended, are incorporated by reference with the specified changes:

1. "Nuclear Regulatory Commission," "NRC," "Commission," and "U.S. Nuclear Regulatory Commission" as used in the provisions of the CFR which are incorporated by reference, mean the New Jersey Department of Environmental Protection, except when specifically noted;
2. 10 CFR 20.1003, in the definition of "ALARA," replace "licensed activity" with "licensed or registered activity," and "and licensed materials" with ," licensed materials, and registered ionizing radiation producing machine sources";

3. 10 CFR 20.1003, in the definition of "background radiation," in the first sentence replace "or special nuclear material)" with special nuclear material, or technologically enhanced naturally occurring radioactive material), and replace in the last sentence "or special nuclear materials regulated by the Commission" with , "special nuclear materials regulated by the State or the NRC, or diffuse NARM";

4. 10 CFR 20.1003, in the definition of "controlled area," replace "licensee" with "licensee or registrant";

5. 10 CFR 20.1003, in the definition of "declared pregnant woman," replace "licensee" with "licensee or registrant";

6. 10 CFR 20.1003, in the definition of "license," replace "parts 30 through 36,39, 40, 50, 60, 61, 63, 70, or 72," with "N.J.A.C. 7:28-4, 51 through 56 through 60, or 63";

7. 10 CFR 20.1003, in the definition of "licensed material," replace "special nuclear material," with "special nuclear material in quantities not sufficient to form a critical mass, diffuse NARM";

8. 10 CFR 20.1003, in the definition of "occupational dose," replace "licensed and unlicensed sources of radiation, whether in the possession of the licensee or other person," with "licensed and unlicensed, or registered or unregistered sources of radiation, whether in possession of the licensee or registrant or other person";

9. 10 CFR 20.1003, in the definition of "public dose," replace "under the control of a licensee," with "under the control of a licensee or registrant.";

10. 10 CFR 20.1003, in the definition of "survey," replace "or other sources of radiation." with , "other sources of radiation, or radiation from ionizing radiation-producing

machines." After the last sentence in the definition of "survey," add "For registrants, the survey must be made under the supervision of a qualified individual.";

11. 10 CFR 20.1003, in the definition of "unrestricted area," replace "licensee" with "licensee or registrant";

12. 10 CFR 20.1006, replace "General Counsel" with "New Jersey Attorney General";

13. 10 CFR 20.1201, replace "licensee" with "licensee or registrant," except in 10 CFR 20.1201(e);

14. 10 CFR 20.1207, replace entire section with "The licensee or registrant shall ensure that the annual occupational dose for minors does not exceed 10 percent of the annual dose limits specified for adult workers in 10 CFR 20.1201.";

15. 10 CFR 20.1208, replace "licensee" with "licensee or registrant";

16. 10 CFR 20.1301, replace "licensee" with "licensee or registrant;" and replace "sanitary sewer system" with "domestic treatment works";

17. 10 CFR 20.1301(a)(1), replace "licensed operation" with "licensed or registered operation";

18. 10 CFR 20.2001(a)(3), replace "within the limits of § 20.1301; or" with "within the limits of § 20.1301, provided prior permission in writing, in the form of a New Jersey Pollutant Discharge Elimination System permit, is obtained from the Department in accordance with N.J.A.C. 7:14A for discharges to ground or surface waters; or";

19. 10 CFR 20.2003, replace "sanitary sewerage" with "domestic treatment works";

20. Replace the language of 10 CFR 20.2201(a)(2) with "Reports must be made to the address and telephone numbers indicated in N.J.A.C. 7:28-1.5";

21. 10 CFR 20.2201(b)(2)(ii), replace "Administrator of the appropriate NRC Regional Office listed in Appendix D to part 20" with "Supervisor, Radioactive Materials Section";

22. Replace the language of 10 CFR 20.2202(d) with "Reports made by licensees in response to the requirements of this section must be made to the address and telephone numbers indicated in N.J.A.C. 7:28-1.5.";

23. 10 CFR 20.2203(b)(2), replace "Privacy Act Information" with "is there a State counterpart?"

24. Replace the language of 10 CFR 20.2203(d) with "All licensees, who make reports under paragraph (a) of this section shall submit the report in writing either by mail or by hand delivery to the Supervisor, Radioactive Materials Section at the addresses indicated in N.J.A.C. 7:28-1.5;"

25. 10 CFR 20.2204, replace "Administrator of the appropriate NRC Regional Office listed in Appendix D to part 20" with "Supervisor, Radioactive Materials Section";

26. 10 CFR 20.2206(c), replace the second sentence with "The licensee shall submit the report to the Supervisor, Radioactive Materials Section at the address indicated in N.J.A.C. 7:28-1.5."; and

27. Replace the language at 10 CFR 20.2402 with "Section 26:2D-22 of the Radiation Protection Act of 1958, as amended, provides for criminal sanctions for violation of any provision of the Act

SUBCHAPTER 7. RADIATION SURVEYS AND PERSONNEL MONITORING FOR REGISTRANTS

7:28-7.1 Surveys inside controlled areas

(a) The [State licensee or] registrant shall ensure that controlled areas shall be surveyed by, or under the direction of, a qualified individual to determine if the installation is maintained and operations are conducted in compliance with this Chapter.

(b) The [State licensee or] registrant shall ensure that radiation levels shall be determined with the use of suitable instruments and methods.

[(c) The State licensee or registrant shall ensure that surveys shall be made of the air for radioactive content when the average concentrations may exceed 1/4 the amount specified in N.J.A.C. 7:28-6.5(a), Column B, or prorated values when more than one isotope is present.

(d) The State licensee or registrant shall ensure that installations where unsealed radioactive materials are stored or used shall be periodically surveyed for contamination of surfaces. These surveys shall be conducted in a manner to insure that the levels of surface contamination are below those that could lead to exposures amounting to 10 percent of the limits specified in N.J.A.C. 7:28-6.1(a) and (d).]

[(e)](c) The [State licensee or] registrant shall ensure that the record of a survey shall contain, but shall not be limited to the radiation levels, the time the radiation is produced, the workweek and the fraction of the workweek that any individual may be exposed to the radiation [and when required, the radioactive air concentrations and surface contaminations].

[(f)](d) The [State licensee or] registrant shall ensure that subsequent surveys shall be conducted at such times and as frequently as may be necessary to assure that the controlled areas and operations remain in compliance with this Chapter.

7:28-7.2 Surveys outside controlled areas

Surveys shall be made outside controlled areas at sufficient intervals and locations as may be necessary to insure compliance with [Sections 6.2 (Radiation levels outside controlled areas) and 6.3 (Concentrations in effluents from controlled areas)]Subchapter 6 of this Chapter.

7:28-7.3 Statement in lieu of actual survey

A written statement signed by a qualified individual and including his calculations and analysis of the dose rates in the vicinity of a radiation source may be acceptable in place of the survey required in Section 7.1 (Surveys inside controlled areas) of this Chapter[, except when radioactive-air contamination or surface contamination is involved].

[7:28-7.5 Requirements for bio-assays

Where necessary or desirable in order to aid in determining the extent of an individual's exposure to concentrations of radioactive material, the Department may incorporate license provisions or issue an order requiring the owner to have appropriate bio-assays made and to furnish the Department with copies of such bio-assays.]

SUBCHAPTER 8. RECORDS FOR REGISTRANTS

7:28-8.1 Personnel-monitoring records

(a) Clear and legible records shall be maintained by the owner for calendar quarters on Form RH-26, or on a clear and legible form containing all the information required on RH-26. These records shall show the radiation exposures of all individuals who are required to wear personnel-monitoring equipment according to Section 7.4 (Use of personnel-monitoring equipment) of this Chapter [and any required bio-assays according to Section 7.5 (Requirements for bio-assays) of this Chapter].

(b) Each employee, at his request, shall be supplied by the owner with an annual statement of his radiation exposure record [and any bio-assays].

(c) (No change.)

(d) (No change.)

(e) (No change.)

(f) (No change.)

(g) (No change.)

7:28-8.2 Records of surveys

(a) Records shall be maintained showing the results of such surveys as are required pursuant to Subchapter 7 (Radiation Surveys and Personnel Monitoring for Registrants) of this Chapter.

(b) (No change.)

(c) (No change.)

(d) The owner of any installation covered in Subchapters 14 through 16 of this Chapter shall submit to the Department within 30 days of receipt a copy of each report of radiation surveys made

in compliance with Subchapter 7 (Radiation Surveys and Personnel Monitoring for Registrants) of this Chapter.

[7:28-8.3 Records of radioactive materials

(a) An accurate accounting for all radioactive materials shall be maintained for a radiation installation. Such records shall show radioactive materials received, produced, and disposed, the amounts and form of the radioactive material received or produced and the amount on hand.

(b) Such records shall be retained for at least two years after the final disposition of any radioactive material.

(c) These records or true copy of same shall be made available to the Department on request.

7:28-8.4 Records of sealed source testing

Records of the results of sealed source testing shall be kept at least two years.]

7:28-8.[5]3 Records from discontinued installations

(No change.)

SUBCHAPTER 9. (Reserved.)

SUBCHAPTER 10. LABELING, POSTING, AND CONTROLS FOR REGISTRANTS

7:28-10.1 General Requirements

(a) (No change.)

(b) In addition to the language prescribed in the various sections of this Subchapter, any supplementary information which might be appropriate in aiding individuals to minimize exposure to radiation [or to radioactive materials], may be provided on or near such required signs or labels.

[7:28-10.4 Airborne radioactivity areas

(a) Each airborne radioactivity area shall be conspicuously posted with a sign or signs bearing the radiation caution symbol and the words;

1. CAUTION--AIRBORNE RADIOACTIVITY AREA; or
2. DANGER--AIRBORNE RADIOACTIVITY AREA

7:28-10.5 Areas containing radioactive materials

(a) Each area or room in which radioactive material, other than natural uranium or thorium is used or stored in an amount greater than ten times that listed in Section 10.9 (Labeling, posting and disposal quantities of radioactive material) of this Chapter shall be conspicuously posted with a sign or signs bearing the radiation caution symbol and the words:

1. CAUTION--RADIOACTIVE MATERIAL(S); or
2. DANGER--RADIOACTIVE MATERIAL(S)

(b) Each area or room in which natural uranium or thorium is used or stored in an amount exceeding 100 times the quantity listed in Section 10.9 (Labeling, posting and disposal quantities of

radioactive material) of this Chapter shall be conspicuously posted with a sign or signs bearing the radiation caution symbol and the words:

1. CAUTION--RADIOACTIVE MATERIAL(S); or
2. DANGER--RADIOACTIVE MATERIAL(S)]

7:28-10.[6]4 Labeling of equipment [and containers]

[(a) Any equipment or container in which radioactive material, other than natural uranium or thorium, is transported, stored, or used, in an amount greater than that specifically listed in Section 10.9 (Labeling, posting and disposal quantities of radioactive material) of this Chapter shall bear a durable, clearly visible label bearing the radiation caution symbol and the words:

1. CAUTION--RADIOACTIVE MATERIAL; or
2. DANGER--RADIOACTIVE MATERIAL

(b) Each container in which natural uranium or thorium is transported, stored, or used in a quantity greater than 10 times the quantity listed in Section 10.9 (Labeling, posting and disposal quantities of radioactive material) of this Chapter shall bear a durable, clearly visible label bearing the radiation caution symbol and the words:

1. CAUTION--RADIOACTIVE MATERIAL; or
2. DANGER--RADIOACTIVE MATERIAL

(c) Where containers are used for storage, the labels required in this Section shall state also the quantities and kinds of radioactive materials in the containers and the date of measurement of the quantities.]

[(d)] All ionizing radiation-producing machines capable, when operated, of producing a radiation area shall be labeled in a manner which cautions individuals of this fact.

7:28-10.[7]5 Removal of signs and labels

All radiation caution signs and labels which may have been posted at a time when they were required shall be removed when the condition which originally required the posting no longer exists.

7:28-10.[8]6 Exceptions from posting and labeling requirements

(a) Radiation areas and high radiation areas which result from the operation of therapeutic x-ray machines operated at potentials of 60 kv and below or from the operation of diagnostic x-ray machines shall be exempt from the posting requirements of Sections 10.2, 10.3 and 10.[6]4[(d)] of this Chapter provided that the operator of the equipment has taken precautions to insure that no individual other than the patient shall be in the radiation area.

[(b) Rooms or other areas in hospitals are not required to be posted with radiation caution signs because of the presence of patients containing radioactive material provided that there are personnel in attendance who shall take the precautions necessary to prevent the exposure of any individual other than the patient to radiation or radioactive material in excess of the limits established in this Chapter.

(c) A room or area is not required to be posted with a radiation caution sign because of the presence of a sealed source provided the radiation level 12 inches from the surface of the source container or source housing does not exceed five millirems per hour.

(d) Radiation caution signs are not required to be posted at areas or rooms containing radioactive materials for periods of less than eight hours provided that:

1. The materials are constantly attended during such periods by an individual who shall take the precautions necessary to prevent the exposure of any other individual to radiation or radioactive materials in excess of the limits established in these regulations; and

2. Such area or room is subject to the user's control.

(e) Laboratory containers such as beakers, flasks and test tubes need not be labeled if they are being used transiently in laboratory procedures when the user is present.

(f) A container in which radioactive material is transported, stored, or used need not be labeled, if the concentration of the material in the container does not exceed that specified in Section 6.5(a) (Average concentrations) of this Chapter, Column A.

(g) Radioactive materials packaged and labeled in accordance with regulations of the appropriate Federal agency shall be exempt from the labeling and posting requirements of this Section during shipment, provided that the inside containers are labeled in accordance with the provisions of Section 10.6 (Labeling of equipment and containers) of this Chapter.

7:28-10.9 Quantities of radioactive materials that require labeling and posting

(a) The quantities of radioactive material subject to all labeling and posting regulations in atomic number order are as follows:

Quantities of Licensed or Registered Material Requiring Labeling

(In Atomic Number Order)

Radionuclide	Quantity (uCi)
Hydrogen-3	1,000
Beryllium-7	1,000
Beryllium-10	1
Carbon-11	1,000
Carbon-14	100
Fluorine-18	1,000
Sodium-22	10
Sodium-24	100
Magnesium-28	100
Aluminum-26	10
Silicon-31	1,000
Silicon-32	1
Phosphorus-32	10
Phosphorus-33	100
Sulfur-35	100
Chlorine-36	10
Chlorine-38	1,000
Chlorine-39	1,000

Argon-39	1,000
Argon-41	1,000
Potassium-40	100
Potassium-42	1,000
Potassium-43	1,000
Potassium-44	1,000
Potassium-45	1,000
Calcium-41	100
Calcium-45	100
Calcium-47	100
Scandium-43	1,000
Scandium-44m	100
Scandium-44	100
Scandium-46	10
Scandium-47	100
Scandium-48	100
Scandium-49	1,000
Titanium-44	1
Titanium-45	1,000
Vanadium-47	1,000
Vanadium-48	100
Vanadium-49	1,000
Chromium-48	1,000

Chromium-49	1,000
Chromium-51	1,000
Manganese-51	1,000
Manganese-52m	1,000
Manganese-52	100
Manganese-53	1,000
Manganese-54	100
Manganese-56	1,000
Iron-52	100
Iron-55	100
Iron-59	10
Iron-60	1
Cobalt-55	100
Cobalt-56	10
Cobalt-57	100
Cobalt-58m	1,000
Cobalt-58	100
Cobalt-60m	1,000
Cobalt-60	1
Cobalt-61	1,000
Cobalt-62m	1,000
Nickel-56	100
Nickel-57	100

Nickel-59	100
Nickel-63	100
Nickel-65	1,000
Nickel-66	10
Copper-60	1,000
Copper-61	1,000
Copper-64	1,000
Copper-67	1,000
Zinc-62	100
Zinc-63	1,000
Zinc-65	10
Zinc-69m	100
Zinc-69	1,000
Zinc-71m	1,000
Zinc-72	100
Gallium-65	1,000
Gallium-66	100
Gallium-67	1,000
Gallium-68	1,000
Gallium-70	1,000
Gallium-72	100
Gallium-73	1,000
Germanium-66	1,000

Germanium-67	1,000
Germanium-68	10
Germanium-69	1,000
Germanium-71	1,000
Germanium-75	1,000
Germanium-77	1,000
Germanium-78	1,000
Arsenic-69	1,000
Arsenic-70	1,000
Arsenic-71	100
Arsenic-72	100
Arsenic-73	100
Arsenic-74	100
Arsenic-76	100
Arsenic-77	100
Arsenic-78	1,000
Selenium-70	1,000
Selenium-73m	1,000
Selenium-73	100
Selenium-75	100
Selenium-79	100
Selenium-81m	1,000
Selenium-81	1,000

Selenium-83	1,000
Bromine-74m	1,000
Bromine-74	1,000
Bromine-75	1,000
Bromine-76	100
Bromine-77	1,000
Bromine-80m	1,000
Bromine-80	1,000
Bromine-82	100
Bromine-83	1,000
Bromine-84	1,000
Krypton-74	1,000
Krypton-76	1,000
Krypton-77	1,000
Krypton-79	1,000
Krypton-81	1,000
Krypton-83m	1,000
Krypton-85m	1,000
Krypton-85	1,000
Krypton-87	1,000
Krypton-88	1,000
Rubidium-79	1,000
Rubidium-81m	1,000

Rubidium-81	1,000
Rubidium-82m	1,000
Rubidium-83	100
Rubidium-84	100
Rubidium-86	100
Rubidium-87	100
Rubidium-88	1,000
Rubidium-89	1,000
Strontium-80	100
Strontium-81	1,000
Strontium-83	100
Strontium-85m	1,000
Strontium-85	100
Strontium-87m	1,000
Strontium-89	10
Strontium-90	0.1
Strontium-91	100
Strontium-92	100
Yttrium-86m	1,000
Yttrium-86	100
Yttrium-87	100
Yttrium-88	10
Yttrium-90m	1,000

Yttrium-90	10
Yttrium-91m	1,000
Yttrium-91	10
Yttrium-92	100
Yttrium-93	100
Yttrium-94	1,000
Yttrium-95	1,000
Zirconium-86	100
Zirconium-88	10
Zirconium-89	100
Zirconium-93	1
Zirconium-95	10
Zirconium-97	100
Niobium-88	1,000
Niobium-89m (66 min)	1,000
Niobium-89 (122 min)	1,000
Niobium-90	100
Niobium-93m	10
Niobium-94	1
Niobium-95m	100
Niobium-95	100
Niobium-96	100
Niobium-97	1,000

Niobium-98	1,000
Molybdenum-90	100
Molybdenum-93m	100
Molybdenum-93	10
Molybdenum-99	100
Molybdenum-101	1,000
Technetium-93m	1,000
Technetium-93	1,000
Technetium-94m	1,000
Technetium-94	1,000
Technetium-96m	1,000
Technetium-96	100
Technetium-97m	100
Technetium-97	1,000
Technetium-98	10
Technetium-99m	1,000
Technetium-99	100
Technetium-101	1,000
Technetium-104	1,000
Ruthenium-94	1,000
Ruthenium-97	1,000
Ruthenium-103	100
Ruthenium-105	1,000

Ruthenium-106	1
Rhodium-99m	1,000
Rhodium-99	100
Rhodium-100	100
Rhodium-101m	1,000
Rhodium-101	10
Rhodium-102m	10
Rhodium-102	10
Rhodium-103m	1,000
Rhodium-105	100
Rhodium-106m	1,000
Rhodium-107	1,000
Palladium-100	100
Palladium-101	1,000
Palladium-103	100
Palladium-107	10
Palladium-109	100
Silver-102	1,000
Silver-103	1,000
Silver-104m	1,000
Silver-104	1,000
Silver-105	100
Silver-106m	100

Silver-106	1,000
Silver-108m	1
Silver-110m	10
Silver-111	100
Silver-112	100
Silver-115	1,000
Cadmium-104	1,000
Cadmium-107	1,000
Cadmium-109	1
Cadmium-113m	0.1
Cadmium-113	100
Cadmium-115m	10
Cadmium-115	100
Cadmium-117m	1,000
Cadmium-117	1,000
Indium-109	1,000
Indium-110 (69.1 min.)	1,000
Indium-110 (4.9 h)	1,000
Indium-111	100
Indium-112	1,000
Indium-113m	1,000
Indium-114m	10
Indium-115m	1,000

Indium-115	100
Indium-116m	1,000
Indium-117m	1,000
Indium-117	1,000
Indium-119m	1,000
Tin-110	100
Tin-111	1,000
Tin-113	100
Tin-117m	100
Tin-119m	100
Tin-121m	100
Tin-121	1,000
Tin-123m	1,000
Tin-123	10
Tin-125	10
Tin-126	10
Tin-127	1,000
Tin-128	1,000
Antimony-115	1,000
Antimony-116m	1,000
Antimony-116	1,000
Antimony-117	1,000
Antimony-118m	1,000

Antimony-119	1,000
Antimony-120 (16 min.)	1,000
Antimony-120 (5.76 d)	100
Antimony-122	100
Antimony-124m	1,000
Antimony-124	10
Antimony-125	100
Antimony-126m	1,000
Antimony-126	100
Antimony-127	100
Antimony-128 (10.4 min.)	1,000
Antimony-128 (9.01 h)	100
Antimony-129	100
Antimony-130	1,000
Antimony-131	1,000
Tellurium-116	1,000
Tellurium-121m	10
Tellurium-121	100
Tellurium-123m	10
Tellurium-123	100
Tellurium-125m	10
Tellurium-127m	10
Tellurium-127	1,000

Tellurium-129m	10
Tellurium-129	1,000
Tellurium-131m	10
Tellurium-131	100
Tellurium-132	10
Tellurium-133m	100
Tellurium-133	1,000
Tellurium-134	1,000
Iodine-120m	1,000
Iodine-120	100
Iodine-121	1,000
Iodine-123	100
Iodine-124	10
Iodine-125	1
Iodine-126	1
Iodine-128	1,000
Iodine-129	1
Iodine-130	10
Iodine-131	1
Iodine-132m	100
Iodine-132	100
Iodine-133	10
Iodine-134	1,000

Iodine-135	100
Xenon-120	1,000
Xenon-121	1,000
Xenon-122	1,000
Xenon-123	1,000
Xenon-125	1,000
Xenon-127	1,000
Xenon-129m	1,000
Xenon-131m	1,000
Xenon-133m	1,000
Xenon-133	1,000
Xenon-135m	1,000
Xenon-135	1,000
Xenon-138	1,000
Cesium-125	1,000
Cesium-127	1,000
Cesium-129	1,000
Cesium-130	1,000
Cesium-131	1,000
Cesium-132	100
Cesium-134m	1,000
Cesium-134	10
Cesium-135m	1,000

Cesium-135	100
Cesium-136	10
Cesium-137	10
Cesium-138	1,000
Barium-126	1,000
Barium-128	100
Barium-131m	1,000
Barium-131	100
Barium-133m	100
Barium-133	100
Barium-135m	100
Barium-139	1,000
Barium-140	100
Barium-141	1,000
Barium-142	1,000
Lanthanum-131	1,000
Lanthanum-132	100
Lanthanum-135	1,000
Lanthanum-137	10
Lanthanum-138	100
Lanthanum-140	100
Lanthanum-141	100
Lanthanum-142	100

Cerium-137m	100
Cerium-137	1,000
Cerium-139	100
Cerium-141	100
Cerium-143	100
Cerium-144	1
Praseodymium-136	1,000
Praseodymium-137	1,000
Praseodymium-138m	1,000
Praseodymium-139	1,000
Praseodymium-142m	1,000
Praseodymium-142	100
Praseodymium-143	100
Praseodymium-144	1,000
Praseodymium-145	100
Praseodymium-147	1,000
Neodymium-136	1,000
Neodymium-138	100
Neodymium-139m	1,000
Neodymium-139	1,000
Neodymium-141	1,000
Neodymium-147	100
Neodymium-149	1,000

Neodymium-151	1,000
Promethium-141	1,000
Promethium-143	100
Promethium-144	10
Promethium-145	10
Promethium-146	1
Promethium-147	10
Promethium-148m	10
Promethium-148	10
Promethium-149	100
Promethium-150	1,000
Promethium-151	100
Samarium-141m	1,000
Samarium-141	1,000
Samarium-142	1,000
Samarium-145	100
Samarium-146	1
Samarium-147	100
Samarium-151	10
Samarium-153	100
Samarium-155	1,000
Samarium-156	1,000
Europium-145	100

Europium-146	100
Europium-147	100
Europium-148	10
Europium-149	100
Europium-150 (12.62 h)	100
Europium-150 (34.2 y)	1
Europium-152m	100
Europium-152	1
Europium-154	1
Europium-155	10
Europium-156	100
Europium-157	100
Europium-158	1,000
Gadolinium-145	1,000
Gadolinium-146	10
Gadolinium-147	100
Gadolinium-148	0.001
Gadolinium-149	100
Gadolinium-151	10
Gadolinium-152	100
Gadolinium-153	10
Gadolinium-159	100
Terbium-147	1,000

Terbium-149	100
Terbium-150	1,000
Terbium-151	100
Terbium-153	1,000
Terbium-154	100
Terbium-155	1,000
Terbium-156m (5.0 h)	1,000
Terbium-156m (24.4 h)	1,000
Terbium-156	100
Terbium-157	10
Terbium-158	1
Terbium-160	10
Terbium-161	100
Dysprosium-155	1,000
Dysprosium-157	1,000
Dysprosium-159	100
Dysprosium-165	1,000
Dysprosium-166	100
Holmium-155	1,000
Holmium-157	1,000
Holmium-159	1,000
Holmium-161	1,000
Holmium-162m	1,000

Holmium-162	1,000
Holmium-164m	1,000
Holmium-164	1,000
Holmium-166m	1
Holmium-166	100
Holmium-167	1,000
Erbium-161	1,000
Erbium-165	1,000
Erbium-169	100
Erbium-171	100
Erbium-172	100
Thulium-162	1,000
Thulium-166	100
Thulium-167	100
Thulium-170	10
Thulium-171	10
Thulium-172	100
Thulium-173	100
Thulium-175	1,000
Ytterbium-162	1,000
Ytterbium-166	100
Ytterbium-167	1,000
Ytterbium-169	100

Ytterbium-175	100
Ytterbium-177	1,000
Ytterbium-178	1,000
Lutetium-169	100
Lutetium-170	100
Lutetium-171	100
Lutetium-172	100
Lutetium-173	10
Lutetium-174m	10
Lutetium-174	10
Lutetium-176m	1,000
Lutetium-176	100
Lutetium-177m	10
Lutetium-177	100
Lutetium-178m	1,000
Lutetium-178	1,000
Lutetium-179	1,000
Hafnium-170	100
Hafnium-172	1
Hafnium-173	1,000
Hafnium-175	100
Hafnium-177m	1,000
Hafnium-178m	0.1

Hafnium-179m	10
Hafnium-180m	1,000
Hafnium-181	10
Hafnium-182m	1,000
Hafnium-182	0.1
Hafnium-183	1,000
Hafnium-184	100
Tantalum-172	1,000
Tantalum-173	1,000
Tantalum-174	1,000
Tantalum-175	1,000
Tantalum-176	100
Tantalum-177	1,000
Tantalum-178	1,000
Tantalum-179	100
Tantalum-180m	1,000
Tantalum-180	100
Tantalum-182m	1,000
Tantalum-182	10
Tantalum-183	100
Tantalum-184	100
Tantalum-185	1,000
Tantalum-186	1,000

Tungsten-176	1,000
Tungsten-177	1,000
Tungsten-178	1,000
Tungsten-179	1,000
Tungsten-181	1,000
Tungsten-185	100
Tungsten-187	100
Tungsten-188	10
Rhenium-177	1,000
Rhenium-178	1,000
Rhenium-181	1,000
Rhenium-182 (12.7 h)	1,000
Rhenium-182 (64.0 h)	100
n2 Rhenium-183	100
Rhenium-184m	10
Rhenium-184	100
Rhenium-186m	10
Rhenium-186	100
Rhenium-187	1,000
Rhenium-188m	1,000
Rhenium-188	100
Rhenium-189	100
Osmium-180	1,000

Osmium-181	1,000
Osmium-182	100
Osmium-185	100
Osmium-189m	1,000
Osmium-191m	1,000
Osmium-191	100
Osmium-193	100
Osmium-194	1
Iridium-182	1,000
Iridium-184	1,000
Iridium-185	1,000
Iridium-186	100
Iridium-187	1,000
Iridium-188	100
Iridium-189	100
Iridium-190m	1,000
Iridium-190	100
Iridium-192 (73.8 d)	1
Iridium-192m (1.4 min.)	10
Iridium-194m	10
Iridium-194	100
Iridium-195m	1,000
Iridium-195	1,000

Platinum-186	1,000
Platinum-188	100
Platinum-189	1,000
Platinum-191	100
Platinum-193m	100
Platinum-193	1,000
Platinum-195m	100
Platinum-197m	1,000
Platinum-197	100
Platinum-199	1,000
Platinum-200	100
Gold-193	1,000
Gold-194	100
Gold-195	10
Gold-198m	100
Gold-198	100
Gold-199	100
Gold-200m	100
Gold-200	1,000
Gold-201	1,000
Mercury-193m	100
Mercury-193	1,000
Mercury-194	1

Mercury-195m	100
Mercury-195	1,000
Mercury-197m	100
Mercury-197	1,000
Mercury-199m	1,000
Mercury-203	100
Thallium-194m	1,000
Thallium-194	1,000
Thallium-195	1,000
Thallium-197	1,000
Thallium-198m	1,000
Thallium-198	1,000
Thallium-199	1,000
Thallium-200	1,000
Thallium-201	1,000
Thallium-202	100
Thallium-204	100
Lead-195m	1,000
Lead-198	1,000
Lead-199	1,000
Lead-200	100
Lead-201	1,000
Lead-202m	1,000

Lead-202	10
Lead-203	1,000
Lead-205	100
Lead-209	1,000
Lead-210	0.01
Lead-211	100
Lead-212	1
Lead-214	100
Bismuth-200	1,000
Bismuth-201	1,000
Bismuth-202	1,000
Bismuth-203	100
Bismuth-205	100
Bismuth-206	100
Bismuth-207	10
Bismuth-210m	0.1
Bismuth-210	1
Bismuth-212	10
Bismuth-213	10
Bismuth-214	100
Polonium-203	1,000
Polonium-205	1,000
Polonium-207	1,000

Polonium-210	0.1
Astatine-207	100
Astatine-211	10
Radon-220	1
Radon-222	1
Francium-222	100
Francium-223	100
Radium-223	0.1
Radium-224	0.1
Radium-225	0.1
Radium-226	0.1
Radium-227	1,000
Radium-228	0.1
Actinium-224	1
Actinium-225	0.01
Actinium-226	0.1
Actinium-227	0.001
Actinium-228	1
Thorium-226	10
Thorium-227	0.01
Thorium-228	0.001
Thorium-229	0.001
Thorium-230	0.001

Thorium-231	100
n1 Thorium-232	.100
Thorium-234	10
Thorium-natural	100
Protactinium-227	10
Protactinium-228	1
Protactinium-230	0.1
Protactinium-231	0.001
Protactinium-232	1
Protactinium-233	100
Protactinium-234	100
Uranium-230	0.01
Uranium-231	100
Uranium-232	0.001
Uranium-233	0.001
n1 Uranium-234	0.001
n1 Uranium-235	0.001
Uranium-236	0.001
Uranium-237	100
1Uranium-238	100
Uranium-239	1,000
Uranium-240	100
Uranium-natural	100

Neptunium-232	100
Neptunium-233	1,000
Neptunium-234	100
Neptunium-235	100
Neptunium-236 (1.15 x 10 ⁿ⁵ y)	0.001
Neptunium-236 (22.5 h)	1
Neptunium-237	0.001
Neptunium-238	10
Neptunium-239	100
Neptunium-240	1,000
Plutonium-234	10
Plutonium-235	1,000
Plutonium-236	0.001
Plutonium-237	100
Plutonium-238	0.001
Plutonium-239	0.001
Plutonium-240	0.001
Plutonium-241	0.01
Plutonium-242	0.001
Plutonium-243	1,000
Plutonium-244	0.001
Plutonium-245	100
Americium-237	1,000

Americium-238	100
Americium-239	1,000
Americium-240	100
Americium-241	0.001
Americium-242m	0.001
Americium-242	10
Americium-243	0.001
Americium-244m	100
Americium-244	10
Americium-245	1,000
Americium-246m	1,000
Americium-246	1,000
Curium-238	100
Curium-240	0.1
Curium-241	1
Curium-242	0.01
Curium-243	0.001
Curium-244	0.001
Curium-245	0.001
Curium-246	0.001
Curium-247	0.001
Curium-248	0.001
Curium-249	1,000

Berkelium-245	100
Berkelium-246	100
Berkelium-247	0.001
Berkelium-249	0.1
Berkelium-250	10
Californium-244	100
Californium-246	1
Californium-248	0.01
Californium-249	0.001
Californium-250	0.001
Californium-251	0.001
Californium-252	0.001
Californium-253	0.1
Californium-254	0.001
Einsteinium-250	100
Einsteinium-251	100
Einsteinium-253	0.1
Einsteinium-254m	1
Einsteinium-254	0.01
Fermium-252	1
Fermium-253	1
Fermium-254	10
Fermium-255	1

Fermium-257	0.01
Mendelevium-257	10
Mendelevium-258	0.01

Any alpha emitting radionuclide not listed above or mixtures of alpha emitters of unknown composition 0.001

Any radionuclide other than alpha emitting radionuclides not listed above, or mixtures of beta emitters of unknown composition 0.01

These quantities do not apply to source materials as defined by the NRC for thorium and uranium.

The value for Re-183 is actually taken from Re-186. The value for Re-183 could not be calculated due to the fact that Re-183 is not listed in 10 CFR 20, Appendix B.

(b) For purposes of N.J.A.C. 7:28-10.5 and 10.6, where there is involved a combination of radionuclides in known amounts, the limit for the combination shall be derived as follows: determine, for each radionuclide in the combination, the ratio between the quantity present in the combination and the limit otherwise established for the specific radionuclide when not in combination. The sum of such ratios for all radionuclides in the combination may not exceed "1" (that is, "unity").]

SUBCHAPTER 11 (Reserved.)

SUBCHAPTER 12. REMEDIATION STANDARDS FOR RADIOACTIVE MATERIALS

7:28-12.2 Applicability

(a) The standards and/or dose criteria in this subchapter are applicable to:

1. Remediation of radioactive contamination of real property by any technologically enhanced naturally occurring radioactive materials, source, by-product, certain special nuclear material, and diffuse NARM; and

2. [Remediation of radioactive contamination of real property by accelerator-produced radionuclides; and

3.] Any other remediation of radioactive contamination including, without limitation, any remediation pursuant to: the Spill Compensation and Control Act, N.J.S.A. 58:10-23.11 et seq.; the Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq.; the Industrial Site Recovery Act, N.J.S.A. 13:1K-6 et seq.; the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq.; the Comprehensive Regulated Medical Waste Management Act, N.J.S.A. 13:1E-48.1 et seq.; the Major Hazardous Waste Facilities Siting Act, N.J.S.A. 13:1E-49 et seq.; the Sanitary Landfill Facility Closure and Contingency Fund Act, N.J.S.A. 13:1E-100 et seq.; the Regional Low Level Radioactive Waste Disposal Facility Siting Act, N.J.S.A. 13:1E-177 et seq.; any law or regulation by which the State may compel a person or licensee to perform remediation activities; or N.J.A.C. 7:26C.

(b) (No change.)

(c) The Department shall apply the radiation [soil] remediation standards and dose criteria in this chapter at applicable sites as "Applicable or Relevant and Appropriate Requirements" as defined in the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. 9601 et seq.

7:28-12.3 Definitions

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

"Appropriate period of time" means the length of time [required for the radionuclide to decay seven half-lives] determined by the Department, taking into consideration the radioactive half-life, total activity, concentration, and physical condition of the residual radioactivity, geologic stability of the area, and current and projected future demographics.

...

"Contaminated site" means a site as defined pursuant to the Technical Requirements for Site Remediation rules at N.J.A.C. 7:26E-1.8.

...

"Engineering controls" means any physical mechanism to contain or stabilize contamination or ensure the effectiveness of a remedial action. Engineering controls under this subchapter may include, without limitation, caps, covers, dikes, trenches, leachate collection systems, radon remediation systems, signs, fences, [and] physical access controls, ground water monitoring systems and ground water containment systems including, without limitation, slurry walls and ground water pumping systems.

...

"Institutional controls" means a mechanism [used to limit human activities at or near a contaminated site, or to ensure the effectiveness of the remedial action over time, when contaminants remain at a site in levels or concentrations above the applicable remediation standard that would allow unrestricted use of that property. Institutional controls under this subchapter may include, without limitation, structure, land and natural resource use restrictions, well restriction areas, classification exception areas, deed notices, and declarations of environmental restrictions] as defined pursuant to the Technical Requirements for Site Remediation rules at N.J.A.C. 7:26E-1.8.

...

"Radioactive contamination or radioactive contaminant" means the collective amount of radiation emitted from one or more radionuclides in the soil, on/in building materials, and/or equipment at concentrations above natural background levels.

...

"Remedial action" means those actions taken at a site[, or offsite if a radioactive contaminant has migrated or is migrating there from a radioactively contaminated site as may be required by the Department, including, without limitation, removal, treatment, containment, transportation, securing, or other engineering or treatment measures,

whether to an unrestricted use or otherwise, designed to ensure that any discharged radioactive contaminant at the site, or that has migrated or is migrating from the site, is remediated in compliance with the applicable remediation standards in this subchapter] as defined pursuant to the Technical Requirements for Site Remediation rules at N.J.A.C. 7:26E-1.8.

"Remediation" or "remediate" means all necessary actions [to investigate and cleanup or respond to any known, suspected, or threatened discharge of radioactive contaminants, including, as necessary, the preliminary assessment, site investigation, remedial investigation, and remedial action] as defined pursuant to the Technical Requirements for Site Remediation rules at N.J.A.C. 7:26E-1.8.

"Remediation standards" means the combination of numeric standards that establish a level or concentration, and narrative standards, to which radioactive contaminants must be treated, removed or otherwise cleaned for soil, ground water or surface water, as [provided] established by the Department pursuant to N.J.S.A. 58:10B-12 and this chapter], in order to meet the health risk or environmental standards].

["Residual radionuclides" means the concentration of radionuclides remaining after the remediation is successfully completed, excluding background.] "Residual radioactivity" means radioactivity in structures, materials, soils, groundwater, and other media at a site resulting from activities under the licensee's or person responsible for the remediation's control. This includes radioactivity from all licensed and unlicensed sources used by the licensee or person responsible for the remediation, but excludes background radiation. It also includes radioactive materials remaining at the site as a result of routine or accidental releases of radioactive material at the site and previous

burials at the site, even if those burials were made in accordance with the provisions of US NRC regulations at Title 10 CFR Part 20, as supplemented or amended, or the provisions of N.J.A.C. 7:28-11.4.

...

"Uncontaminated surface soil" means soil whose average natural background radionuclide total concentrations are less than the [limits for residual] remediation standards for radionuclides, and cannot exceed the background established for the site by more than two standard deviations.

"Unrestricted use remedial action" means any remedial action [that does not require the continued use of engineering or institutional controls in order to meet the established standards] as defined pursuant to the Technical Requirements for Site Remediation rules at N.J.A.C. 7:26E-1.8.

...

7:28-12.4 General requirements

(a) Any person or licensee conducting remediation pursuant to this subchapter shall comply with the requirements of N.J.A.C. 7:26E, Technical Requirements for Site Remediation, excluding those sections related to sampling, surveying, and background

investigations. Sampling, surveying and laboratory requirements shall be in accordance with N.J.A.C. 7:28-12.5.

(b) The Department may require a licensee to provide a decommissioning plan which addresses historical site assessment, scoping, characterization, remedial action options and selection, and a final status survey report when deemed appropriate considering the types, quantities, and half-lives of the licensed material.

[(b)](c) Compliance with this subchapter shall not relieve any person or licensee from complying with more stringent cleanup standards or provisions imposed by any other applicable statute, rule or regulation.

(d) Upon Departmental approval of the remedial action workplan or similar plan, the Department may not subsequently require a change to that workplan or similar plan in order to compel a different remediation standard due to the fact that the established remediation standards have changed; however, the Department may compel a different remediation standard if the difference between the new remediation standard and the remediation standard approved by the Department in the workplan or similar plan differs by an order of magnitude.

7:28-12.5 Sampling, surveying and laboratory requirements

(a) Facilities licensed under 10 CFR Part 50 that have Nuclear Regulatory Commission-approved quality assurance plans are exempt from the requirements of this section. Otherwise, in addition to the requirements in N.J.A.C. 7:26E Appendix A IV.1, persons responsible for conducting remediations or licensees shall include the following in the radionuclide analysis reports:

1. – 6. (No change.)

(b) If available, persons responsible for conducting remediations or licensees shall provide:

1. – 5. (No change.)

[(c) For radionuclides, analytical methods contained in the following publications, incorporated herein by reference, or equivalents as approved by the Department, shall be used for determining radionuclide concentrations and/or radiation levels:

1. U.S. Environmental Protection Agency; "Prescribed Procedures for Measurement of Radioactivity in Drinking Water," EPA 600/4-80-32, as amended and supplemented. This document may be obtained from the USEPA National Air and Radiation Environmental Laboratory, 540 S. Morris Ave., Montgomery, AL 36115-2601;

2. U.S. Department Of Energy; "Environmental Measurements Laboratory--Procedures Manual," HASL-300, 27th Ed., Vol. 1, as amended and supplemented. This document may be obtained from the US Department of Energy, Environmental Measurements Laboratory, 201 Varick St., 5th Floor, New York, NY 10014-4811; and/or

3. U.S. Environmental Protection Agency Eastern Environmental Radiation Facility; "Radiochemistry Procedures Manual," EPA 520/5-84-006, as amended and supplemented. This document may be obtained from the address in (c)1 above.]

[(d)] (c) Any laboratory providing radiological analysis for soil or water shall be certified pursuant to N.J.A.C. 7:18 [for radionuclide analysis in water and, in addition,

shall have participated in and passed a soil intercomparison analysis administered by either the International Atomic Energy Agency or the U.S. Department of Energy's Environmental Measurements Laboratory within the year preceding the radiological analysis for the methods of interest].

[(e)] (d) Sampling and surveying for radioactive contamination shall be done in accordance with the protocol specified in that version of the Department of Environmental Protection's Field Sampling Procedure Manual's section on Radiological Assessment, incorporated herein by reference, in effect at the time of sampling and surveying which may be obtained by calling the Bureau of Environmental Radiation at (609) 984-5400 or from the Radiation Protection Program's web site at <http://www.state.nj.us/dep/rpp/index.htm>.

7:28-12.7 Remedial action requirements

The remedial action requirements for all sites contaminated with radioactive material shall be in accordance with N.J.A.C. 7:26E-6.], with the exception of N.J.A.C. 7:26E-6.4, Post-remedial action requirements. Post-remedial sampling shall be conducted] Post remediation sampling for radioactive contamination shall be conducted in accordance with the guidance provided in that version of the Department of Environmental Protection's Field Sampling Procedure Manual's section on Radiological Assessment, in effect at the time of the post-remedial sampling.

7:28-12.8 Radiation dose standards applicable to remediation of radioactive contamination of all real property

(a) Sites shall be remediated so that the incremental radiation dose to any person from any residual radioactive contamination at the site above that due to natural background radionuclide concentration, under either an unrestricted use remedial action, limited restricted use remedial action, or a restricted use remedial action, shall be as specified below:

1. - 2. (No change.)

(b) [3.] Radioactively contaminated ground water shall be remediated to comply with the New Jersey Groundwater Quality Standards rules, N.J.A.C. 7:9C.

(c) Radioactively contaminated surface water shall be remediated to comply with the New Jersey Surface Water Quality Standards, N.J.A.C. 7:9B.

7:28-12.9 Minimum remediation standards for [radionuclide] TENORM and source material contamination [of soil]

(a) For radioactive contamination [in soils], the requirements of N.J.A.C. 7:28-12.8 shall be considered to be met for a specific radionuclide if:

1. -3. (No change.)

(b). (No change.)

7:28-12.10 Minimum remediation standards for accelerator-produced, by-product, and certain special nuclear materials

(a) Remediation standards shall meet the requirements at N.J.A.C. 7:28-12.8.

(b) Computer models acceptable to the Department shall be used to determine the remediation standards.

(c) Modeling parameters used in developing unrestricted and restricted use standards shall be equivalent to those used in the NJDEP's model, RaSoRS, which is available on the Radiation Protection Programs website at <http://www.state.nj.us/dep/rpp/index.htm>.

(d) Dose calculations shall be performed out to the time of peak dose or 1000 years, whichever is longer.

(e) Restricted use remediation standards shall meet requirements at N.J.A.C. 7:28-12.11(e) and 12.12.

7:28-12.[10] 11 Petition for alternative remediation standards for radioactive contamination

(a) In lieu of using the minimum remediation standards for radioactive contamination [of soil] found at N.J.A.C. 7:28-12.9 or developed under N.J.A.C. 7:28-12.10, a person or licensee may petition the Department for an alternative [soil]

remediation standard for radioactive contamination. Such an alternate [soil cleanup]

remediation standard:

1. – 3. (No change.)

4. Shall not result in radionuclide in surface water levels exceeding those in the New Jersey Surface Quality Standards in N.J.A.C. 7:9B.

(b) The Department shall not consider a petition for an alternative [soil] remediation standard for radionuclides that is supported by increasing, in any manner, the allowed incremental [background] dose [value] criterion of 15 mrem/yr (0.15 mSv/yr) or the allowed incremental radon in air concentration of three pCi/L (111 Bq/m³), or varying the parameters listed in Tables 6 or 7 below.

(No change to tables.)

(c) The Department shall consider petitions only in cases where site-specific or waste specific factors, and/or site design features are used in performing the dose assessment, which are different than those used by the Department in establishing the [soil concentrations] remediation standards in N.J.A.C. 7:28-12.9 or 12.10. Factors which the Department shall consider in a petition for an alternate [soil] remediation standard include, but are not limited to:

1. – 4. (No change.)

(d) A petition for an alternate [soil] remediation standard shall include an analysis demonstrating how and why the difference in factors such as those in Tables 8

and 9 above and/or indoor and outdoor occupancy times will result in substantially different [soil] remediation standards than those in N.J.A.C. 7:28-12.9.

(e) Regardless of the factors used by the petitioner or licensee, the Department shall not approve alternative standard petitions that include institutional and engineering controls where failure of those controls, not including the failure of a radon remediation system, would result in more than 100 mrem (one mSv) total annual effective dose equivalent.

(f) In the event the Department determines that sufficient evidence exists to support consideration of an alternative [soil] remediation standard, the petitioner or licensee shall submit a written analysis which demonstrates compliance with the dose limits in N.J.A.C. 7:28-12.9 or 12.10 including:

1. The remedial action informational requirements of N.J.A.C. 7:26E-6;
and

2. A dose assessment analysis, including:
i. An estimate of the radiation doses received by a post-remediation on-site resident for an unrestricted use remedial action, or by [a resident or] an employee (of a proposed commercial use facility) for a limited restricted use or restricted use remedial action.

ii. (No change.)

iii. Dose [Groundwater radionuclide concentration] calculations which shall be extended for a period of 1,000 years or to the time of peak dose, whichever is longer;

iv. – vii. (No change.)

(g) Engineering controls or institutional controls may be incorporated as part of a petition for an alternative remediation standard provided that these controls will be durable and implemented for an appropriate period of time to achieve their intended purpose.

(h) Computer models acceptable to the Department may be used by the petitioner or licensee for an alternative [soil] remediation standard to confirm that the requirements of N.J.A.C. 7:28-12.9 or N.J.A.C. 7:28-12.10 have been and will continue to be met.

7:28-12.[11] 12 Requirements pertaining to engineering or institutional controls

(a) All remediation proposals shall designate the intended use(s) of the property. Such intended use(s) shall be restricted as necessary to prevent future exposure, and shall otherwise be consistent with current and projected State and local zoning designations or land uses. For sites not remediated to the unrestricted use standards in N.J.A.C. 7:28-12.9 or 12.10, the Department shall define the nature and duration of all appropriate engineering or institutional controls necessary to meet the standards in N.J.A.C. 7:28-12.9, 12.10, or 12.[10]11(a), based upon the particular conditions of the site.

(b) In order for any remediation under this subchapter requiring engineering controls or institutional controls to meet the standards in N.J.A.C. 7:28-12.9, 12.10, or 12.[10]11(a), the person responsible for conducting the remediation or licensee shall, in addition to meeting the provisions of N.J.S.A. 58:10B-13:

1. (No change.)

2. Provide sufficient financial assurance for the costs of implementing and maintaining the requisite active engineered or institutional controls for an appropriate period of time. Provide sufficient financial assurance for the costs of implementing and maintaining the requisite active engineered or institutional controls for an appropriate period of time. Acceptable financial assurance mechanisms are set forth at 10 CFR 20.1403(c)(1) through (4), incorporated herein by reference, as supplemented or amended.

Acceptable financial assurance mechanisms are found in 10 CFR 20.1403(c)(1) through (5), herein incorporated by reference as supplemented and amended.

i. Funds placed into an account segregated from the petitioner or licensee's assets and outside the petitioner's or licensee's administrative control as described in N.J.A.C. 7:28-51.1;

ii. Surety method, insurance, or other guarantee method as described in N.J.A.C. 7:28-51.1;

iii. A statement of intent in the case of Federal, State, or local Government licensees, as described in N.J.A.C. 7:28-51.1; or

iv. If a government entity is assuming custody and ownership of a site, an arrangement that is deemed acceptable by such governmental entity.

(c) A person responsible for conducting the remediation or the licensee shall conduct public outreach if the Department determines that outreach is needed, or when the Department determines that there is substantial public interest in activities concerning restricted release license termination.

1. The Department may determine that there is substantial public interest when it receives:

i. A petition containing the signatures of 25 or more people that live or work within 200 feet of the site, if contamination has not migrated from the site boundary;

ii. A petition containing the signatures of 25 people that live or work within 200 feet of the extent of contamination, if contamination has migrated from the site boundary; or

iii. A written request by a municipal official, such as a Mayor or chairperson of an environmental commission, or a designated local health official.

2. When the Department determines that there is substantial public interest the Department shall notify the person responsible for conducting the remediation or the licensee and post a summary of findings on the Department's web site at www.state.nj.us/dep; and

3. The person responsible for conducting the remediation or the licensee shall develop and implement enhanced public notice based on the expressed needs of the community and may include the following:

i. Publicizing and hosting an information session or public meeting;

ii. Publishing a notice containing basic information about the site in the local paper of record; or

iii. Establishing a local information repository.

4. The notifications required pursuant to this section are not intended to satisfy the public participation requirements applicable to sites subject to the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. 9601, et seq. and the National Contingency Plan, 40 CFR Part 300, as supplemented or amended.

7:28-12.[12] 13 Requirements pertaining to a change in land use

(a) Any subsequent proposed use of a property that is different from the intended use (other than unrestricted use remedial actions) described in the original remediation proposal shall require a prior review and prior approval by the Department. To initiate this review, 90 calendar days prior to a proposed change in land use, the person or licensee proposing such use shall prepare and submit to the Department, at the Bureau of Environmental Radiation, PO Box 415, Trenton, NJ 08625-0415, and to each affected municipality, a brief written description of the new proposed use as compared to the intended use upon which the original remediation was based including all planned soil excavations, and any additional remedial actions to be implemented.

(b) If the Department determines that the proposed new use may cause the dose limitations of N.J.A.C. 7:28-12.8 to be exceeded, the person or licensee requesting the use change shall be required to prepare and submit to the Department's Bureau of Environmental Radiation, PO Box 415, Trenton, NJ 08625-0415, a dose assessment analysis, containing the information required under N.J.A.C. 7:28-12.[10]11(f)2, (g), and

(h), to ascertain whether the dose limitation requirements of N.J.A.C. 7:28-12.8 will be met for the proposed new use.

(c) In preparing the dose assessment analysis, the person or licensee may incorporate into the new use plan new remedial measures such as different radionuclide in soil concentrations, or radioactive contamination vertical extents, and/or new engineering or institutional controls, provided that for engineering or institutional controls, the person responsible for conducting the remediation or licensee provides for the cost of implementing and maintaining them as specified in N.J.A.C. 7:28-12.[11]12(c)3.

7:28-12.[13]14 Requirements pertaining to the final status survey

(No change in text.)

7:28-12.15 Requirements pertaining to onsite burial or capping

(a) No owner or licensee shall bury or construct an engineered barrier (cap) over radioactive material onsite without prior approval in writing from the Department.

(b) Owners or licensees with sites that have been used for burial of radioactive materials or where radioactive material has been capped, shall not be allowed to convert these sites to other uses except with the written permission of the Department.

(c) The owner or licensee of any burial ground or capped material shall notify the Department in writing not less than 30 days in advance of any transfer of title to the property involved.

SUBCHAPTER 13. REPORTS OF THEFTS AND RADIATION INCIDENTS FOR
REGISTRANTS

7:28-13.1 Reports of theft or loss

A [State licensee, radioactive materials registrant or] registrant shall immediately notify the Department by telephone, telefax or telegraph of any theft or loss of any [source of] ionizing radiation-producing [including] machine [sources and any naturally occurring or accelerator produced radioactive material, including TENORM, in such quantities and] under such circumstances that a substantial radiation hazard [and/or contamination hazard] may result.

7:28-13.2. Reportable radiation incidents

(a) A [State licensee, radioactive materials registrant or] registrant shall immediately notify the Department by telephone, telefax or telegraph of any radiation incident which may have caused or threatens to cause the following:

1. (No change.)

[2. The release of radioactive material in concentrations which, if averaged over a period of 24 hours, would exceed 5,000 times the limits specified for such materials in N.J.A.C. 7:28-11 Appendix, Table 1, or prorated values if more than one isotope is released;]

[3]2. A loss of one working week or more of the operation of any facilities affected; or

[4]3. Damage to property in excess of \$100,000.

(b) (No change.)

(c) A [State licensee, radioactive materials registrant or] registrant shall notify the Department within 24 hours by telephone, telefax or telegraph of any radiation incident which may have caused or threatens to cause the following:

1. (No change.)

[2. The release of radioactive material in concentrations which, if averaged over a period of 24 hours, would exceed 500 times the limit specified for such materials in N.J.A.C. 7:28-11 Appendix, Table 1, or prorated values if more than one isotope is released;]

[3]2. A loss of one day or more of the operation of any facilities affected; or

[4]3. Damage to property in excess of \$1,000.

(d) (No change.)

(e) A [State licensee, radioactive materials registrant or] registrant shall notify the Department in writing within 30 days of the following:

1. Each exposure of an individual to radiation [or concentrations of radioactive material] in excess of any applicable limit of N.J.A.C. 7:28-6[, or of a State licensee's license];

2. Any incident for which notification is required by subsections (a) and (c) of this Section; or

3. Levels of radiation [or concentrations of radioactivity,] not involving exposure of any individual in excess of any applicable limit of N.J.A.C. 7:28-6 outside a controlled

area in excess of 10 times the limits of N.J.A.C. 7:28-6[.2], Standards for Protection Against Radiation [and 11 or of a State licensee's license].

(f) The reports set forth in subsection (e) of this Section shall describe the extent of exposure of individuals to radiation [or to radioactive materials], the levels of radiation [and concentrations of radioactive materials involved], the cause of the exposure[, and/or levels, [or concentrations] and corrective steps taken or planned to assure against a recurrence.

(g) In each case where (e)1 above requires a report to the Department of exposure of an individual, the owner shall:

1. (No change.)

2. Concurrently give written notification to the individual of the nature and extent of the exposure. Such notice shall contain the following statement: "This report is furnished to you under the provisions of Subchapter 13 (Reports of Thefts and Radiation Incidents for Registrants) of the New Jersey Administrative Code. You should preserve this report for future reference."

SUBCHAPTER 17. INDUSTRIAL AND NONMEDICAL X-RAY RADIOGRAPHY

7:28-17.1 Scope

(a) This subchapter establishes radiation-safety requirements for persons utilizing [sealed sources, radiographic-exposure devices or] ionizing radiation-producing machines for industrial and nonmedical radiography.

(b) – (d) (No change.)

7:28-17.2 Definitions

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

...

"Temporary job site" means any location where industrial radiography is performed other than the location(s) listed in a [license or] registration issued by the Department pursuant to N.J.A.C. 7:28-3 [or 7:28-4].

7:28-17.3 Registration [and licensing] requirements

(a) (No change.)

[(b) All owners of sealed sources or radiographic-exposure devices shall comply with N.J.A.C. 7:28-3 and 7:28-4.]

7:28-17.4 Equipment control

(a) [The permissible levels of radiation from radiographic-exposure devices and storage containers shall be as follows:

1. Radiographic-exposure devices measuring less than four inches from the sealed source storage position to any external surface of the device shall not produce

a radiation level in excess of 50 milliroentgens per hour at least six inches from any point on the external surface of the device.

2. Radiographic-exposure devices measuring a minimum of four inches from the sealed source storage position to any external surface of the device and all storage containers for sealed sources or for radiographic-exposure devices shall not produce radiation levels in excess of 200 milliroentgens per hour at any point on the external surface and 10 milliroentgens per hour at one meter from any point on the external surface.

3. The radiation levels specified in one and two above are with the sealed source in the shielded or "off" position.] (Reserved.)

(b) (No change.)

(c) [Each radiographic-exposure device and each storage container shall be provided with a lock or outer locked container designed to prevent unauthorized or accidental removal of a sealed source or its change from a shielded to an unshielded position.] All ionizing radiation-producing machines[, radiographic-exposure devices and storage containers] shall be kept locked at all times except when under the direct surveillance of a radiographer or of a radiographer's assistant or as provided in N.J.A.C. 7:28-17.6(a).

(d) [Locked radiographic-exposure devices and storage containers shall be physically secured to prevent tampering or removal by unauthorized personnel.]

(Reserved.)

(e) (No change.)

(f) [The replacement of any sealed source fastened to or contained in a radiographic-exposure device and leak testing, repair, tagging, opening or any other modification of any sealed source shall be performed only by persons specifically authorized by the Department, a Federal agency or any Agreement State.] (Reserved.)

(g) [Sealed sources are to be leak tested under the following conditions and requirements:

1. Each sealed source shall be tested for leakage at intervals not to exceed six months. In the absence of a certificate from a transferor that a test has been made within the six months prior to the transfer, the sealed source shall not be put into use until tested.

2. The leak test shall be capable of detecting the presence of 0.005 microcuries of removable contamination on the sealed source. A test made at the nearest accessible point to the sealed source storage position may be an acceptable leak test.

3. Leak tests shall be carried out only by individuals and by procedures both of which require prior approval by the Department. Approval will be based upon a description of the following:

i. Instrumentation to be used;

ii. Method of performing test including points on equipment to be tested; and

iii. Pertinent experience of person who will perform the test.

4. Records of leak test results shall be kept in units of microcuries and maintained for inspection by the Department.] (Reserved.)

(h) [Requirements regarding any leaking sealed source shall be as follows:

1. Any test conducted pursuant to (g) above which reveals the presence of 0.005 microcuries or more of removable radioactive material shall be considered evidence that a sealed source is leaking.

2. The owner shall immediately withdraw any leaking sealed source above from use and shall cause it to be decontaminated and repaired in accordance with (f) or to be disposed of in accordance with N.J.A.C. 7:28-11.

3. Within five working days after obtaining results of the test performed pursuant to (g) above, a report shall be filed with the Department, describing the equipment involved, the test results, and the corrective action taken.] (Reserved.)

(i) [A sealed source which is not fastened to or contained in a radiographic-exposure device shall have permanently attached to it a durable tag at least one inch square, bearing the prescribed radiation caution symbol in conventional colors, magenta or purple on a yellow background, and at least the instructions: "Danger--Radioactive Material--Do Not Handle--Notify Civil Authorities if Found."] (Reserved.)

(j) [Each owner shall conduct an ongoing inventory and keep a written record of each sealed source that is received, possessed, and used. This record shall include the date of receipt of each sealed source, the identity and quantity of the radioactive material contained within each sealed source, the date and to whom each sealed source is assigned and of the location at which each sealed source is to be used, the date that each sealed source is returned for storage at the owner's facility, the date that the source is returned for replacement, and the date of calibration.] (Reserved.)

(k) Each owner shall maintain current logs, which shall be kept available for inspection by the Department at the address specified in the license, showing for each radiation source the following information.

1. A description, or make and model number of the ionizing radiation-producing machine[, or of the radiographic-exposure device or storage container in which the sealed source is located];

2. - 3. (No change.)

(l) Each owner conducting industrial radiography at a temporary job site shall make the following records available at the site for inspection by the Department:

1. [A copy of the owner's current license to possess or use radioactive materials issued by the Department pursuant to N.J.A.C. 7:28-4.] (Reserved.)

2. A copy of the owner's current registration of a [radioactive material or] ionizing radiation-producing machine issued by the Department pursuant to N.J.A.C. 7:28-3;

3. [A copy of the owner's current license to possess or use radioactive materials issued by the United States Nuclear Regulatory Commission;] (Reserved.)

4. - 8. (No change.);

9. [A copy of the record of leak test results made pursuant to (g)4 above.]

7:28-17.5 Personal radiation safety requirements for radiographers

(a) The owner shall not permit any person to act as a radiographer until such person:

1. – 2. (No change.)

3. Has demonstrated competence to use the ionizing radiation-producing machines[, radiographic-exposure devices, sealed sources, related handling tools] and survey instruments which will be employed in his assignment.

(b) The outline of the course for radiographer's training is as follows:

1. Fundamentals of radiation safety:

i. – iii. (No change.)

iv. Levels of radiation from ionizing radiation-producing machines [and radioactive materials];

v. (No change.)

2. (No change.);

3. Radiographic equipment to be used:

i. (No change);

ii. [Radiographic-exposure devices] (Reserved.);

iii. – iv. (No change.)

4. – 5. (No change.)

(c) The owner shall not permit any person to act as a radiographer's assistant until such person:

1. (No change.)

2. Has demonstrated competence to use under the personal supervision of the radiographer the ionizing radiation-producing machines[, radiographic-exposure devices, sealed sources, related handling tools] and radiation-survey instruments which will be employed in his assignment; and

3. (No change.)

(d) The owner shall prepare written operating and emergency procedures which shall include instructions in at least the following:

1. The handling and the use of ionizing radiation-producing machines[, sealed sources and radiographic-exposure devices] to be employed such that no person is likely to be exposed to radiation doses in excess of the limits established in N.J.A.C.

7:28-6;

2. – 3. (No change.)

4. Methods and occasions for locking and securing ionizing radiation-producing machines[, radiographic-exposure devices, storage containers and sealed sources];

5. (No change.)

6. [Transporting sealed sources to field locations, including packing of radiographic-exposure devices and storage containers in the vehicles, posting of vehicles, and control of the sealed sources during transportation](Reserved.);

7. – 9. (No change.)

(e) (No change.)

7:28-17.6 Precautionary procedures in radiographic operations

(a) – (c) (No change.)

(d) In addition to the requirements of N.J.A.C. 7:28-7, no radiographic operation shall be conducted unless the owner ensures that radiation surveys are made and recorded as follows:

1. (No change.)
2. [A physical radiation survey shall be made after each radiographic exposure employing a sealed source to determine that the sealed source has been returned to its shielded condition.] (Reserved.)
3. [After radiographic operations employing a sealed source or sources have been completed, a physical radiation survey shall be made to determine that each sealed source is in its shielded condition prior to securing the radiographic-exposure device and storage container as specified in N.J.A.C. 7:28-17.4(a) and (c).] (Reserved.)
4. Clear and legible records shall be kept of the surveys that are required by (d)1 [and 3] above and maintained for inspection by the Department.

7:28-17.8 Shielded room radiography

(a) No person shall operate or permit the operation of any ionizing radiation-producing machine[, radiographic-exposure device, or sealed source] used in shielded room radiography unless the equipment, installation, and personnel meet the requirements of N.J.A.C. 7:28-17.1 through 7:28-17.6 and 7:28-17.8.

(b) No person shall operate or permit any person to operate an ionizing radiation-producing machine[, radiographic-exposure device, or sealed source] used in shielded room radiography until such operator has completed the following requirements:

1. – 3. (No change.)

(c) Each owner shall supply appropriate personnel monitoring equipment and shall require that it be used by every individual who operates, makes "set-ups," or

performs maintenance on an ionizing radiation-producing machine[, radiographic-exposure device, or sealed source] used in shielded room radiography.

(d) (No change.)

(e) No person shall enter an enclosed room in which shielded room radiography is performed until after a physical radiation survey is conducted to determine whether the ionizing radiation producing machine is off [or the radiographic-exposure device or the sealed source is in the shielded or "off" position]. A record shall be maintained of the date and exposure rate measured for each physical radiation survey and shall be made available for inspection by the Department.

(f) – (g) (No change.)

(h) All ionizing radiation-producing machines[, radiographic-exposure devices, and sealed sources] used in shielded room radiography and all objects exposed thereto shall be confined within an installation or structure designed or intended for radiography and in which radiography is regularly performed in accordance with the following requirements:

1. – 6. (No change.)

SUBCHAPTER 18. MAJOR NUCLEAR FACILITIES

7:28-18.1 Scope

(a) - (b) (No change.)

(c) The intent of this Section is to insure that individuals outside of these facilities receive no radiation exposures from environmental or direct radiation that are in

excess of the limits of [Sections 6.1 (Exposure of individuals in controlled areas) and 6.2 (Radiation levels outside controlled areas)] Subchapter 6 of this Chapter.

SUBCHAPTER 48. FEES FOR THE REGISTRATION OF NONIONIZING
RADIATION PRODUCING SOURCES

7:28-48.2 Definitions

...

"Radiation area" means an area which is accessible to a worker and in which there exists levels of nonionizing radiation that exceed the maximum permissible levels of such radiation as specified in the rules and standards of the Commission.

...

SUBCHAPTER 49. (Reserved.)

SUBCHAPTER 50. NOTICES, INSTRUCTIONS AND REPORTS TO WORKERS:
INSPECTION AND INVESTIGATIONS

7:28-50.1 Incorporation by reference

(a) Except as set forth in (b) and (c) below, this subchapter incorporates by reference 10 CFR Part 19, as supplemented or amended.

(b) The following provisions of 10 CFR Part 19 are not incorporated by reference.

If there is a cross reference to a Federal citation specifically entirely excluded from

incorporation, then the cross referenced citation is not incorporated by virtue of the cross reference:

1. 10 CFR 19.5, Communications.

2. 10 CFR 19.8, Information collection requirements: OMB approval

(c) The following provisions of 10 CFR Part 19, as supplemented or amended, are incorporated by reference with the specified changes:

1. At 10 CFR 19.2, Scope, delete references to 10 CFR Parts 50, 60, 63, 72 and 76.

2. At 10 CFR 19.3, Definitions, "Commission" shall mean the New Jersey Department of Environmental Protection;

3. "Nuclear Regulatory Commission," "NRC," and "U.S. Nuclear Regulatory Commission" as used in the provisions of the Code of Federal Regulations that are incorporated by reference, mean the New Jersey Department of Environmental Protection, except when specifically noted;

4. 10 CFR 19.4, replace all references to "General Counsel" with "State Office of the Attorney General";

5. 10 CFR 19.11(a)(1), replace "Part 20" with "N.J.A.C. 7:28-6";

6. 10 CFR 19.13(b), replace "Sec. 20.2106 of 10 CFR Part 20" with "N.J.A.C. 7:28-6";

7. 10 CFR 19.13(c)(1)(i), replace "Sec. 20.2106" with "N.J.A.C. 7:28-6";

8. 10 CFR 19.13(c)(1)(i), replace "Sec. 20.1502" with "N.J.A.C. 7:28-6";

9. 10 CFR 19.13(d), replace "Sec. Sec. 20.2202, 20.2203, 20.2204, or 20.2206 of this Chapter" with "N.J.A.C. 7:28-6";

10. 10 CFR 19.17(a), replace all references to “Executive Director for Operations” with “Chief, Bureau of Environmental Radiation”;

11. 10 CFR 19.17(a) and (b), replace all references to “Administrator of the appropriate Regional Office” with “Supervisor, Radioactive Materials Section”;

12. 10 CFR 19.18, replace all references to the “General Counsel” or “Office of the General Counsel” with “State Office of the Attorney General”;

13. 10 CFR 19.20, delete references to 10 CFR Parts 50, 60, 63, 72 and 76.

(d) For those facilities whose radioactive materials are solely licensed by the Department, NRC Form 3, “Notice to Employees” shall mean the Department’s form RPP-14, “Notice to Employees, Standards for Protection Against Radiation” available from the Department via the Department’s website at:

www.nj.gov/dep/rpp/rms/rmsdown.htm, or by requesting a copy by telephone during normal working hours at (609) 984-5462.

(e) Those facilities that possess a license from the Department and the NRC for radioactive materials shall post both the NRC’s Form 3, “Notice to Employees,” and the Department’s form RPP-14, “Notice to Employees, Standards for Protection Against Radiation.”

(f) Reports that are to be submitted to the Department shall be submitted to the address at N.J.A.C. 7:28-1.5.

SUBCHAPTER 51. RULES OF GENERAL APPLICABILITY TO DOMESTIC
LICENSING OF BYPRODUCT MATERIAL

7:28-51.1 Incorporation by reference

(a) Except as set forth in (b) and (c) below, this subchapter incorporates by reference 10 CFR Part 30, as supplemented or amended.

(b) The following provisions of 10 CFR Part 30 are not incorporated by reference. If there is a cross reference to a Federal citation specifically entirely excluded from incorporation, then the cross referenced citation is not incorporated by virtue of the cross reference:

1. 10 CFR 30.4, Definitions, the following definitions are not incorporated by reference: “act,” “byproduct material,” “curie,” “decommission,” “department “ and “Department of Energy,” “effective dose equivalent,” “government agency,” “license,” “medical use,” “person,” “source material” and “special nuclear material.”

2. 10 CFR 30.6, Communications;

3. 10 CFR 30.8, Information collection requirements: OMB approval;

4. 10 CFR 30.21(c), Radioactive drug: Capsules containing carbon-14 urea for “in vivo” diagnostic use for humans;

5. 10 CFR 30.34(d), (e)(1) and (e)(3), Terms and conditions of licenses;

6. 10 CFR 30.41(b)(6), Transfer of byproduct material; and

7. 10 CFR 30.55, Tritium reports.

(c) The following provisions of 10 CFR Part 30, as supplemented or amended, are incorporated by reference with the specified changes:

1. 10 CFR 30.4, Definitions:

i. "Commission" shall mean the New Jersey Department of Environmental Protection;

2. "Nuclear Regulatory Commission," "NRC," and "U.S. Nuclear Regulatory Commission" as used in the provisions of the Code of Federal Regulations which are incorporated by reference, mean the New Jersey Department of Environmental Protection, except when specifically noted;

3. 10 CFR 30.5, replace all references to the "General Counsel" with "State Office of the Attorney General";

4. 10 CFR 30.9(b), replace all references to "Administrator of the appropriate Regional Office" with "Supervisor, Radioactive Materials Section";

5. 10 CFR 30.10(b), replace "10 CFR part 2, subpart B" with "N.J.S.A. 26:2D-13";

6. 10 CFR 30.14(c), add "the Department" after "holding a specific license issued by";

7. 10 CFR 30.14(c), in this citation, the term "Commission" will continue to mean the U.S. Nuclear Regulatory Commission;

8. 10 CFR 30.15(a), delete "20 and" and add "and N.J.A.C. 7:28-6" after "of this Chapter";

9. 10 CFR 30.16, delete "20 and" and add "and N.J.A.C. 7:28-6" after "of this Chapter";

10. 10 CFR 30.19(a), delete “20 and” and add “and N.J.A.C. 7:28-6” after “of this Chapter”;

11. 10 CFR 30.20(a), delete “20 and” and add “and N.J.A.C. 7:28-6” after “of this Chapter”;

12. 10 CFR 30.32(a), replace the first sentence with “Application for specific licenses and renewals from the State shall be filed with Department on forms available from the Department”;

13. 10 CFR 30.32(e), replace all references to 10 CFR Part 170 with N.J.A.C. 7:28-64.

14. 10 CFR 30.33(a)5, replace “Director of Nuclear Material Safety and Safeguards,” with “Manager, Bureau of Environmental Radiation.”

15. 10 CFR 30.35(c)(5), replace “10 CFR Part 20, Appendix G” with “N.J.A.C. 7:28-6”;

16. 10 CFR 30.35(c)(5), replace “10 CFR Part 20” with “N.J.A.C. 7:28-12”;

17. 10 CFR 30.35(g)(3)(i), replace “10 CFR 20.1003” with “N.J.A.C. 7:28-6”;

18. 10 CFR 30.35(g)(3)(iii), replace “10 CFR 20.2108” with “N.J.A.C. 7:28-6”;

19. 10 CFR 30.35(g)(3)(iv), replace “10 CFR Part 20, subpart E” with “N.J.A.C. 7:28-12”;

20. 10 CFR 30.35(g)(3)(iv), replace “10 CFR 20.2002” with “N.J.A.C. 7:28-6”;

21. 10 CFR 30.36(j)(2), replace “10 CFR Part 20, subpart E” with “N.J.A.C. 7:28-12”
22. 10 CFR 30.36(k)(3)(i), replace “10 CFR Part 20, Subpart E” with “N.J.A.C. 7:28-12”
23. 10 CFR 30.36(k)(3)(ii), replace “10 CFR Part 20, subpart E” with “N.J.A.C. 7:28-12”;
24. 10 CFR 30.37(a), replace the wording of (a) with “Application for renewal of a specific State license shall be filed with the Department on forms available from the Department.”;
25. 10 CFR 30.38, Change the title of the section from “Application for amendment of licenses” to “Amendment of licenses.” Replace “Applications for amendment of a license shall be filed on Form NRC-313 in accordance with 30.32” from the beginning of the sentence, up to the wording “and shall specify,” with “Requests to amend a license shall be shall be submitted in letter form to the Department”;
26. 10 CFR 30.50(b)(1)(ii), replace “appendix B of Sec. Sec. 20.1001-20.2401 of 10 CFR Part 20” with “N.J.A.C. 7:28-6.1”;
27. 10 CFR 30.50(b)(4)(i), replace “appendix B of Sec. Sec. 20.1001-20.2401 of 10 CFR Part 20” with “N.J.A.C. 7:28-6.1”;
28. 10 C.F.R 30.50(c)(2), replace “appropriate NRC Regional office listed in appendix D to part 20 of this Chapter” with “Department”;
29. 10 CFR 30.51(d), replace “appropriate NRC Regional Office” with “Department”;

30. 10 CFR 30.51(d)(1), replace “Sec. Sec. 20.2002 (including burials authorized before January 28, 1981), 20.2003, 20.2004, 20.2005” with “N.J.A.C. 7:28-6”;

31. 10 CFR 30.51(d)(2), replace “Sec. 20.2103(b)(4)” with N.J.A.C. 7:28-6”;

32. 10 CFR 30.51(e)(1), replace “Sec. Sec. 20.2002 (including burials authorized before January 28, 1981), 20.2003, 20.2004, 20.2005” with “N.J.A.C. 7:28-6”;

33. 10 CFR 30.51(e)(2), replace “Sec. 20.2103(b)(4)” with N.J.A.C. 7:28-6”; and

34. 10 CFR 30, Appendix B to Part 30—Quantities of Licensed Material Requiring Labeling, end Note, replace “Sec. 20.303” with “N.J.A.C. 7:28-6.”

(d) For those facilities whose radioactive materials are solely licensed by the Department, NRC Form 3, “Notice to Employees” shall mean the Department’s form RPP-14, “Notice to Employees, Standards for Protection Against Radiation” available from the Department via the Department’s website at:

www.nj.gov/dep/rpp/rms/rmsdown.htm, or by requesting a copy by telephone during normal working hours at (609) 984-5462.

(e) Those facilities who possess a license from the Department and the NRC for radioactive materials shall post both the NRC’s Form 3, “Notice to Employees” and the Department’s form RPP-14, “Notice to Employees, Standards for Protection Against Radiation.”

(f) Reports that are to be submitted to the Department shall be submitted to the address at N.J.A.C. 7:28-1.5.

SUBCHAPTER 52. GENERAL DOMESTIC LICENSES FOR BYPRODUCT MATERIAL

7:28-52.1 Incorporation by reference

(a) Except as set forth in (b) and (c) below, this subchapter incorporates by reference 10 CFR Part 31, as supplemented or amended.

(b) The following provisions of 10 CFR Part 31 are not incorporated by reference. If there is a cross reference to a Federal citation specifically entirely excluded from incorporation, then the cross referenced citation is not incorporated by virtue of the cross reference:

1. 10 CFR Part 31.4, Information collection requirements: OMB approval

(c) The following provisions of 10 CFR Part 31 are incorporated by reference with the specified changes:

1. "Commission," "Nuclear Regulatory Commission," "NRC," and "U.S. Nuclear Regulatory Commission" as used in the provisions of the Code of Federal Regulations that are incorporated by reference, means the New Jersey Department of Environmental Protection, except when specifically noted;

2. 10 CFR 31.2, delete "20," and add "N.J.A.C. 7:28-6" after "of this chapter";

3. 10 CFR 31.5(c)(5), replace "Sec. 20.1402" with "N.J.A.C. 7:28-12";

4. 10 CFR 31.5(c)(9)(i), replace "20.2201, and 20.2202" with "N.J.A.C. 7:28-6";

5. 10 CFR 31.5(c)(10), replace "Sec. Sec. 20.2201, and 20.2202 of this chapter" with "N.J.A.C. 7:28-6";

6. 10 CFR 31.5(c)(10), delete “20,” and add “N.J.A.C. 7:28-6” after “of this chapter”;
7. 10 CFR 31.5(c)(13)(ii), after “fee required by” replace “Section 170.31” with “N.J.A.C. 7:28-64”;
8. 10 CFR 31.5(c)(13)(iv), in this citation, the terms “NRC” and “Commission” shall continue to mean the U.S. Nuclear Regulatory Commission;
9. 10 CFR 31.5(c)(14), replace “Director of Nuclear Material Safety and Safeguards, ATTN: GLTS, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001” with “Department”;
10. 10 CFR 31.7(b), delete “20,” and add “N.J.A.C. 7:28-6” after “of this chapter”;
11. 10 CFR 31.7(b), replace “Sec. Sec. 20.2201, and 20.2202” with “N.J.A.C. 7:28-6”;
12. 10 CFR 31.8(c), delete “20,” and add ,” as well as N.J.A.C. 7:28-6” after the second “of this chapter”;
13. 10 CFR 31.10(b)(1), replace “Sec. 20.2001” with “N.J.A.C. 7:28-6”;
14. 10 CFR 31.10(b)(3), delete “20,” and add “and N.J.A.C. 7:28-6,”;
15. 10 CFR 31.10(b)(3), replace “Sec. Sec. 20.2001, 20.2201, and 20.2202 of this chapter” with “N.J.A.C. 7:28-6”;
16. 10 CFR 31.11(c)(5), replace “Sec. 20.2001” with “N.J.A.C. 7:28-6”;
17. 10 CFR 31.11(f), delete “20,” and add “and N.J.A.C. 7:28-6” after “of this chapter” and

18. 10 CFR 31.11(f), replace “Sec. Sec. 20.2001, 20.2201, and 20.2202” with “N.J.A.C. 7:28-6.”

(d) For those facilities whose radioactive materials are licensed solely by the Department, NRC Form 3, “Notice to Employees,” shall mean the Department’s form RPP-14, “Notice to Employees, Standards for Protection Against Radiation,” available from the Department via the Department’s website at www.nj.gov/dep/rpp/rms/rmsdown.htm or by requesting a copy by telephone during normal working hours at (609) 984-5462.

(e) Those facilities that possess a license for radioactive materials from both the Department and the NRC shall post both the NRC’s Form 3, “Notice to Employees,” and the Department’s form RPP-14, “Notice to Employees, Standards for Protection Against Radiation.”

(f) Reports that are to be submitted to the Department shall be submitted to the address at N.J.A.C. 7:28-1.5.

SUBCHAPTER 53. SPECIFIC DOMESTIC LICENSES TO MANUFACTURE OR
TRANSFER CERTAIN ITEMS CONTAINING BYPRODUCT MATERIAL

7:28-53.1 Incorporation by reference

(a) Except as set forth in (b) and (c) below, this subchapter incorporates by reference 10 CFR Part 32, as supplemented or amended.

(b) The following provisions of 10 CFR Part 32 are not incorporated by reference. If there is a cross reference to a Federal citation specifically entirely excluded from incorporation, then the cross referenced citation is not incorporated by virtue of the cross reference:

1. 10 CFR 32.8, Information collection requirements: OMB approval;

2. 10 CFR 32.14, Certain items containing byproduct material;

requirements for license to apply or initially transfer;

3. 10 CFR 32.15, Same: Quality assurance, prohibition of transfer, and

labeling;

4. 10 CFR 32.16, Certain items containing byproduct material: Records

and reports of transfer;

5. 10 CFR 32.18, Manufacture, distribution and transfer of exempt

quantities of byproduct material: Requirements for license;

6. 10 CFR 32.19, Same: Conditions of licenses;

7. 10 CFR 32.20, Same: Records and material transfer reports;

8. 10 CFR 32.21, Radioactive drug: Manufacture, preparation or transfer

for commercial distribution of capsules containing carbon-14 urea each for "in vivo"

diagnostic use for humans to persons exempt from licensing; Requirements for a license;

9. 10 CFR 32.21a, Same: Conditions of license;

10. 10 CFR 32.22, Self-luminous products containing tritium, krypton-85

or promethium 147: Requirements for license to manufacture, process, produce, or

initially transfer;

11. 10 CFR 32.23, Same: Safety criteria;

12. 10 CFR 32.25, Conditions of licenses issued under Part 32.22: Quality control, labeling, and reports of transfer;

13. 10 CFR 32.26, Gas and aerosol detectors containing byproduct material: Requirements for license to manufacture, process, produce, or initially transfer;

14. 10 CFR 32.27, Same: Safety criteria;

15. 10 CFR 32.28, Same: Table of organ doses;

16. 10 CFR 32.29, Conditions of licenses issued under Part 32.26: Quality control, labeling, and reports of transfer;

17. 10 CFR 32.40, Schedule A-Prototype tests for automobile lock illuminators and

18. 10 CFR 32.210, Registration of product information.

(c) The following provisions of 10 CFR Part 30 are incorporated by reference with the specified changes:

1. 10 CFR 32.52(a), replace “Director of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001,” with “New Jersey Department of Environmental Protection, Radioactive Materials Section, P.O. Box 415, Trenton, New Jersey 08625-0415”;

2. 10 CFR 32.56, replace “Director of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001,” with “Department at the address specified in N.J.A.C. 7:28-1,5(a)”;

3. “Commission,” “Nuclear Regulatory Commission,” “NRC,” and “U.S. Nuclear Regulatory Commission” as used in the provisions of the Code of Federal

Regulations which are incorporated by reference, means the New Jersey Department of Environmental Protection, except when specifically noted;

4. 10 CFR 32.2, in the definition of “nationally tracked source,” replace “part 20 of this Chapter” with “10 CFR part 20 as incorporated by reference in N.J.A.C. 7:28-6”;

5. 10 CFR 32.51(a)(2)(ii), replace “Sec. 20.1201(a) of this chapter” with “N.J.A.C. 7:28-6”;

6. 10 CFR 32.51(a)(4), replace “Sec. 20.1901 of this chapter” with “N.J.A.C. 7:28-6”;

7. 10 CFR 32.51(a)(5), replace “Sec. 20.1901 of this chapter” with “N.J.A.C. 7:28-6”;

8. 10 CFR 32.51(c), replace “Sec. 20.1201(a) of this chapter” with “N.J.A.C. 7:28-6”;

9. 10 CFR 32.51a(a)(2), add “and” between “31.2,” and “30.51”;

10. 10 CFR 32.51a(a)(2), delete “20.2201, and 20.2202” and add “and N.J.A.C. 7:28-6” after “of this chapter”;

11. 10 CFR 32.51a(b)(1), add “and” between “31.2” and “30.51” in both locations;

12. 10 CFR 32.51a(b)(1), delete “20.2201, and 20.2202” from both locations and add “and N.J.A.C. 7:28-6” after “of this chapter” in both locations;

13. 10 CFR 32.54(a), replace “Sec. 20.1901 of this chapter” with “N.J.A.C. 7:28-6”;

14. 10 CFR 32.61(d), replace “Sec. 20.1901(a) of this chapter” with “N.J.A.C. 7:28-6”;

15. 10 CFR 32.71(c)(2), replace “Sec. 20.1901(a) of this chapter” with “N.J.A.C. 7:28-6” and

16. 10 CFR 32.71(e), replace “Sec. 20.2001” with “N.J.A.C. 7:29-6.”

(d) For those facilities whose radioactive materials are solely licensed by the Department, NRC Form 3, “Notice to Employees” shall mean the Department’s form RPP-14, “Notice to Employees, Standards for Protection Against Radiation” available from the Department as discussed in N.J.A.C. 7:28-50.1(d).

(e) Those facilities that possess a license from the Department and the NRC for radioactive materials shall post both the NRC’s Form 3, “Notice to Employees,” and the Department’s form RPP-14, “Notice to Employees, Standards for Protection Against Radiation.”

(f) Reports that are to be submitted to the Department shall be submitted to the address at N.J.A.C. 7:28-1.5.

Subchapter 54: Specific Domestic Licenses of Broad Scope for Byproduct Material

7:28-54.1 Incorporation by reference

(a) Except as set forth in (b) and (c) below, this subchapter incorporates by reference 10 CFR Part 33, as supplemented or amended.

(b) The following provisions of 10 CFR Part 33 are not incorporated by reference. If there is a cross reference to a Federal citation specifically entirely excluded

from incorporation, then the cross referenced citation is not incorporated by virtue of the cross reference:

1. 10 CFR Part 33.8, Information collection requirements: OMB approval

(c) The following provisions of 10 CFR Part 30 are incorporated by reference with the specified changes:

1. "Commission," "Nuclear Regulatory Commission," "NRC," and "U.S. Nuclear Regulatory Commission" as used in the provisions of the Code of Federal Regulations which are incorporated by reference, means the Department.

2. 10 CFR 33.12, replace with "Application for specific licenses from the State and renewals shall be filed with Department on forms available from the Department."

(d) For those facilities whose radioactive materials are solely licensed by the Department, NRC Form 3, "Notice to Employees," shall mean the Department's form RPP-14, "Notice to Employees, Standards for Protection Against Radiation" available from the Department as discussed in N.J.A.C. 7:28-50.1(d).

(e) Those facilities who possess a license from the Department and the NRC for radioactive materials shall post both the NRC's Form 3, "Notice to Employees," and the Department's form RPP-14, "Notice to Employees, Standards for Protection Against Radiation."

(f) Reports that are to be submitted to the Department shall be submitted to the address at N.J.A.C. 7:28-1.5.

SUBCHAPTER 55. MEDICAL USE OF BYPRODUCT MATERIAL

7:28-55.1 Incorporation by reference

(a) Except as set forth in (b) and (c) below, this subchapter incorporates by reference 10 CFR Part 35, as supplemented or amended.

(b) The following provisions of 10 CFR Part 35 are not incorporated by reference. If there is a cross reference to a Federal citation specifically entirely excluded from incorporation, then the cross referenced citation is not incorporated by virtue of the cross reference:

1. 10 CFR Part 35.8, Information collection requirements: OMB approval

(c) The following provisions of 10 CFR Part 35 are incorporated by reference with the specified changes:

1. "Commission," "Nuclear Regulatory Commission," "NRC," and "U.S. Nuclear Regulatory Commission" as used in the provisions of the Code of Federal Regulations, which are incorporated by reference, means the New Jersey Department of Environmental Protection, except when specifically noted.

2. 10 CFR 35.1, delete "20," and add "and N.J.A.C. 7:28-6" after "of this chapter";

3. 10 CFR 35.12(b)(1), at the start of the sentence, replace "Filing an original and one copy of NRC Form 313, "Application for Material License," with "Filing an original application for a specific license from the State with the Department on forms available from the Department,";

4. 10 C.F.R 35.12(c), delete the wording "amendment or";

5. 10 CFR 35.12(c)(1), delete the wording "and one copy" and "either";

6. 10 CFR 35.12(c)(1)(i), delete the wording “NRC Form 313, “Application for Material License.”; or” and replace with “an initial application or renewal application form available from the Department”;
7. 10 CFR 35.12(c)(1)(ii), delete wording “or renewal”;
8. 10 CFR 35.12(d), create new wording for (d) to state “A request for an amendment must be made by submitting a letter requesting the amendment and relevant supporting documentation as required by 35.610, 35.642, 35.643, and 35.645, as applicable”;
9. 10 CFR 35.12(d), change existing citation to 35.12(e);
10. 10 CFR 35.12(e), change existing citation to 35.12(f);
11. 10 CFR 35.18(a)(1), delete the wording “NRC Form 313 “Application for Material License,” and replace with “an original application for a specific license from the State”;
12. 10 CFR 35.24(a), replace “Sec. 20.1101 of this chapter” with “N.J.A.C. 7:28-6”;
13. 10 CFR 35.61(a), replace “10 CFR Part 20” with “N.J.A.C. 7:28-6”;
14. 10 CFR 35.63(b)(2)(i), delete the wording;
15. 10 CFR 35.63(b)(2)(ii), change existing citation to 35.63(b)(2)(i);
16. 10 CFR 35.70(a), replace “Part 20 of this chapter” with “N.J.A.C. 7:28-6”;
17. 10 CFR 35.80(a)(4), replace “Part 20 of this chapter” with “N.J.A.C. 7:28-6”;

18. 10 CFR 35.310(a)(2)(i), replace “Sec. 20.1301(a)(1) of this chapter”
with “N.J.A.C. 7:28-6”;

19. 10 CFR 35.310(a)(2)(ii), replace “Sec. 20.1301(c) of this chapter”
with “N.J.A.C. 7:28-6”;

20. 10 CFR 35.410(a)(4)(i), replace “Sec. 20.1301(a)(1) of this chapter”
with “N.J.A.C. 7:28-6”;

21. 10 CFR 35.410(a)(4)(ii), replace “Sec. 20.1301(c) of this chapter”
with “N.J.A.C. 7:28-6”;

22. 10 CFR 35.652(a), replace “Sec. 20.1501 of this chapter” with
“N.J.A.C. 7:28-6”;

23. 10 CFR 35.3045(c), replace “NRC Operations Center” with
“Department”;

24. 10 CFR 35.3047(c), replace “NRC Operations Center” with
“Department”;

25. 10 CFR 35.3047(d), replace “appropriate NRC Regional Office listed
in Sec. 30.6 of this chapter” with “Department”; and

26. 10 CFR 35.3067, replace “appropriate NRC Regional Office listed in
Sec. 30.6 of this chapter” with “Department” and delete “, with a copy to the Director,
Office of Nuclear Material Safety and Safeguards.”

(d) For those facilities whose radioactive materials are solely licensed by the
Department, NRC Form 3, “Notice to Employees” shall mean the Department’s form
RPP-14, “Notice to Employees, Standards for Protection Against Radiation” available
from the Department as discussed in N.J.A.C. 7:28-50.1(d).

(e) Those facilities that possess a license from the Department and the NRC for radioactive materials shall post both the NRC's Form 3, "Notice to Employees" and the Department's form RPP-14, "Notice to Employees, Standards for Protection Against Radiation."

(f) Reports that are to be submitted to the Department shall be submitted to the address at N.J.A.C. 7:28-1.5.

SUBCHAPTER 56. LICENSES AND RADIATION SAFETY REQUIREMENTS FOR
IRRADIATORS

7:28-56.1 Incorporation by reference

(a) Except as set forth in (b) and (c) below, this subchapter incorporates by reference 10 CFR Part 36, as supplemented or amended and regulations, orders, and licenses thereunder.

(b) The following provisions of 10 CFR Part 36 are not incorporated by reference. If there is a cross reference to a Federal citation specifically entirely excluded from incorporation, then the cross referenced citation is not incorporated by virtue of the cross reference:

1. 10 CFR Part 36.8, Information collection requirements: OMB approval

(c) The following provisions of 10 CFR Part 36 are incorporated by reference with the specified changes:

1. "Commission," "Nuclear Regulatory Commission," "NRC," and "U.S. Nuclear Regulatory Commission" as used in the provisions of the Code of Federal

Regulations which are incorporated by reference, means the New Jersey Department of Environmental Protection, except when specifically noted.

2. 10 CFR 36.1(a), delete "20," and add "N.J.A.C. 7:28-6" after "of this chapter";

3. 10 CFR 36.11, replace "...Form NRC 313, "Application for Material License," with "...forms available from the Department," delete "and one copy," and replace "appropriate NRC Regional Office listed in appendix D to part 20 of this chapter" with "Department";

4. 10 CFR 36.17, replace "Commission" with "Department, with approval of the Commission on Radiation Protection," and replace "by law and will not endanger life or property or the common defense and security and are otherwise in the public interest" with "in compliance with N.J.A.C. 7:28-2.8";

5. 10 CFR 36.23(g), replace "10 CFR 20.1902" in both locations with "N.J.A.C. 7:28-6";

6. 10 CFR 36.55(a), replace "10 CFR 20.1501(c)" with "N.J.A.C. 7:28-6";

7. 10 CFR 36.57(d), replace "10 CFR part 20, table 2, column 2 or table 3 of appendix B" with "as incorporated by reference in N.J.A.C. 7:28-6 " and

8. 10 CFR 36.59(c), replace "table 2, column 2, appendix B to part 20" with "N.J.A.C. 7:28-6."

(d) For those facilities whose radioactive materials are solely licensed by the Department, NRC Form 3, "Notice to Employees" shall mean the Department's form

RPP-14, "Notice to Employees, Standards for Protection Against Radiation" available from the Department as discussed in N.J.A.C. 7:28-50.1(d).

(e) Those facilities who possess a license from the Department and the NRC for radioactive materials shall post both the NRC's Form 3, "Notice to Employees" and the Department's form RPP-14, "Notice to Employees, Standards for Protection Against Radiation."

(f) Reports that are to be submitted to the Department shall be submitted to the address at N.J.A.C. 7:28-1.5.

SUBCHAPTER 57. LICENSES AND RADIATION SAFETY REQUIREMENTS FOR WELL LOGGING

7:28-57.1 Incorporation by reference

(a) Except as set forth in (b) and (c) below, this subchapter incorporates by reference 10 CFR Part 39, as supplemented or amended and regulations, orders, and licenses thereunder.

(b) The following provisions of 10 CFR Part 39 are not incorporated by reference. If there is a cross reference to a Federal citation specifically entirely excluded from incorporation, then the cross referenced citation is not incorporated by virtue of the cross reference:

1. 10 CFR Part 39.8, Information collection requirements: OMB approval

(c) The following provisions of 10 CFR Part 39 are incorporated by reference with the specified changes:

1. "Commission," "Nuclear Regulatory Commission," "NRC," and "U.S. Nuclear Regulatory Commission" as used in the provisions of the Code of Federal Regulations which are incorporated by reference, means the New Jersey Department of Environmental Protection, except when specifically noted.

2. 10 CFR 39.1(a), delete "20," and add "and N.J.A.C. 7:28-6" after "of this chapter";

3. 10 CFR 39.11, replace "Form NRC 313, "Application for Material License." with "forms available from the Department" and replace "appropriate NRC Regional Office listed in appendix D of part 20 of this chapter" with "Department";

4. 10 CFR 39.15(a)(5)(iii)(B), replace "Sec. 20.1901(a)" with "N.J.A.C. 7:28-6";

5. 10 CFR 39.31(a)(1), replace "Sec. 20.1901(a)" with "N.J.A.C. 7:28-6";

6. 10 CFR 39.31(a)(2), replace "Sec. 20.1901(a)" with "N.J.A.C. 7:28-6";

7. 10 CFR 39.33(a), replace "part 20 of this chapter" with "N.J.A.C. 7:28-6";

8. 10 CFR 39.35(d)(2), replace "appropriate NRC Regional Office listed in appendix D of part 20 of this chapter" with "Department";

9. 10 CFR 39.61(a)(2)(i), delete "20," and add "and N.J.A.C. 7:28-6" after "of this chapter";

10. 10 CFR 39.61(b)(1), delete "s" from "parts," delete "and 20," and add "and N.J.A.C. 7:28-6";

11. 10 CFR 39.63(h), replace "Sec. 20.1906 of this chapter" with "N.J.A.C. 7:28-6";

12. 10 CFR 39.71(b), replace “Sec.20.1003 of this chapter” with “N.J.A.C. 7:28-6”;
13. 10 CFR 39.73(a), replace “19, 20, and 39” with “N.J.A.C. 7:28-6, 50 and 57”;
14. 10 CFR 39.75(d), replace § 71.5” with “N.J.A.C. 7:28-61”;
14. 10 CFR 39.75(e), add “, or NRC” after “Agreement State”;
15. 10 CFR 39.77(a), replace “NRC Regional Office by telephone” with “Department by telephone as per N.J.A.C. 7:28-1.5”;
16. 10 CFR 39.77 (b), replace “§§ 20.2201-20.2202, § 20.2203 and §30.50” with “N.J.A.C. 7:28-6 and N.J.A.C. 7:28-51”; and
17. 10 CFR 39.91, add "with the approval of the Commission on Radiation Protection," after "initiative," and replace “and will not endanger life or property or the common defense and security and are otherwise in the public interest” with “in accordance with the provisions of N.J.A.C. 7:28-2.8.
- (f) Reports that are to be submitted to the Department shall be submitted to the address at N.J.A.C. 7:28-1.5.

SUBCHAPTER 58. DOMESTIC LICENSING OF SOURCE MATERIAL

7:28-58.1 Incorporation by reference

(a) Except as set forth in (b) and (c) below, this subchapter incorporates by reference 10 CFR Part 40, as supplemented or amended and regulations, orders, and licenses thereunder.

(b) The following provisions of 10 CFR Part 40 are not incorporated by reference. If there is a cross reference to a Federal citation specifically entirely excluded from incorporation, then the cross referenced citation is not incorporated by virtue of the cross reference:

1. 10 CFR Part 40.2a, Coverage of inactive tailings sites;

2. 10 CFR 40.4, Definitions. The following definitions are not incorporated by reference: "Commission," "decommission," and "license."

3. 10 CFR Part 40.5, Communications;

4. 10 CFR Part 40.8, Information collection requirements: OMB approval;

5. 10 CFR Part 40.12(b), Carriers;

6. 10 CFR 40.20(b)and (c), Types of licenses;

7. 10 CFR Part 40.23, General license for carriers of transient shipments of natural uranium other than in the form of ore or ore residue;

8. 10 CFR Part 40.26, General license for possession and storage of byproduct material as defined in this part;

9. 10 CFR Part 40.27, General license for custody and long-term care of residual radioactive material disposal sites;

10. 10 CFR Part 40.28, General license for custody and long-term care of uranium or thorium byproduct materials disposal sites;

11. 10 CFR Part 40.31(c), (f), (g), (h), (j), (k), (l), Application for specific licenses;

12. 10 CFR Part 40.32(d), (e), (g), General requirements for issuance of specific licenses;

13. 10 CFR Part 40.33, Issuance of a license for a uranium enrichment facility;

14. 10 CFR 40.35(f), Conditions of specific licenses issued pursuant to §40.34

15. 10 CFR Part 40.38, Ineligibility of certain applicants;

16. 10 CFR 40.41(g), Terms and conditions of licenses;

17. 10 CFR Part 40.51(b)(6), Transfer of source or byproduct material;

18. 10 CFR Part 40.64, Reports;

19. 10 CFR Part 40.65, Effluent monitoring reporting requirements;

20. 10 CFR Part 40.66, Requirements for advance notice of export shipments of natural uranium;

21. 10 CFR Part 40.67, Requirement for advance notice for importation of natural uranium from countries that are not party to the Convention on the Physical Protection of Nuclear Material and

22. Appendix A, Criteria Relating to the Operation of Uranium Mills and the Disposition of Tailings or Wastes Produced by the Extraction or Concentration of Source Material from Ores Processed Primarily for their Source Material Content.

(c) The following provisions of 10 CFR Part 40 are incorporated by reference with the specified changes:

1. "Commission," "Nuclear Regulatory Commission," "NRC," and "U.S. Nuclear Regulatory Commission" as used in the provisions of the Code of Federal

Regulations which are incorporated by reference, means the New Jersey Department of Environmental Protection, except when specifically noted.

1. “Registrant” as used in the provisions of the Code of Federal Regulations which are incorporated by reference, means a “radioactive materials registrant” except when specifically noted.

2. 10 CFR 40.6, replace "General Counsel" with "New Jersey Attorney General";

3. 10 CFR 40.9(b), replace "Administrator of the appropriate Regional Office" with "Department";

4. 10 CFR 40.14(a), replace "Commission" with "Department, with approval of the Commission on Radiation Protection," and replace "by law and will not endanger life or property or the common defense and security and are otherwise in the public interest" with "in compliance with N.J.A.C. 7:28-2.8";

5. 10 CFR 40.21, delete "or byproduct material";

6. 10 CFR 40.22(b), delete "19, 20, and" and add "and N.J.A.C. 7:28-6 and N.J.A.C. 7:28-50" after "of this chapter";

7. 10 CFR 40.25(c)(1), replace "NRC Form 244, "Registration Certificate--Use of Depleted Uranium 3. 10 CFR 40.25(c)(2), replace "Director, Division of Industrial and Medical Nuclear Safety, with a copy to the Regional Administrator of the appropriate U.S. Nuclear Regulatory Commission Regional Office listed in appendix D of part 20 of this chapter" with "Department";

8. 10 CFR 40.25(d)(4), replace "Director, Division of Industrial and Medical Nuclear Safety, with a copy to the Regional Administrator of the appropriate

U.S. Nuclear Regulatory Commission Regional Office listed in appendix D of part 20 of this chapter” with “Department”;

9. 10 CFR 40.25(e), delete "19, 20 and" and add "and N.J.A.C. 7:28-6 and N.J.A.C. 7:28-50" after "of this chapter";

10. 10 CFR 40.31(a), replace "NRC Form 313, 'Application for Material License,' in accordance with the instructions in § 40.5 of this chapter" with "forms available from the Department";

11. 10 CFR 40.31(e), replace "§ 170.31" with "N.J.A.C. 7:28-64";

12. 10 CFR 40.34(a)(2), replace "Sec. 20.1201(a)" with "N.J.A.C. 7:28-6";

13. 10 CFR 40.25(c)(1), (c)(2), and (d)(3), add "or equivalent" after "NRC Form 244";

14. 10 CFR 40.35(d)(1) and (d)(2), add "or equivalent" after "NRC Form 244";

15. 10 CFR 40.35(e)(1), replace "Director, Office of Nuclear Material Safety and Safeguards" with "Department";

16. 10 CFR 40.31(c), replace "regulations contained in parts 2 and 9 of this chapter" with "the Open Public Records Act (P.L. 2001, c. 404);

17. 10 CFR 40.31(e), replace "part 170" with "Subchapter 64" and "§ 170.31" with "Subchapter 64";

18. 10 CFR 40.36(e)(2), replace "part 30" with "Subchapter 51";

19. 10 CFR 40.41(c), replace "part 71" with "N.J.A.C. 7:28-61";

20. 10 CFR 40.41(f)(1), replace "appropriate Regional Administrator" with "Department";
21. 10 CFR 40.36(f)(3)(i), replace "10 CFR 20.1003" with "N.J.A.C. 7:28-6";
22. 10 CFR 40.36(f)(3)(iii), replace "10 CFR 20.2108" with "N.J.A.C. 7:28-6";
23. 10 CFR 40.36(f)(3)(iv), replace "10 CFR part 20, subpart E" with "N.J.A.C. 7:28-12" and replace "10 CFR 20.2002" with "N.J.A.C. 7:28-6";
24. 10 CFR 40.42(j)(2), replace "10 CFR part 20, subpart E" with "N.J.A.C. 7:28-12";
25. 10 CFR 40.42(k)(3)(i), replace "10 CFR part 20, subpart E" with "N.J.A.C. 7:28-12";
26. 10 CFR 40.42(k)(3)(ii), replace "10 CFR part 20, subpart E" with "N.J.A.C. 7:28-12";
27. 10 CFR 40.43(a), add "or equivalent" after "NRC Form 313";
28. 10 CFR 40.44, add "or equivalent" after "NRC Form 313";
29. 10 CFR 40.60(b)(1)(ii), replace "appendix B of Sec. Sec. 20.1001-20.2401 of 10 CFR part 20" with "N.J.A.C. 7:28-6";
30. 10 CFR 40.60(b)(4)(i), replace "appendix B of Sec. Sec. 20.1001-20.2401 of 10 CFR part 20" with "N.J.A.C. 7:28-6";
31. 10 CFR 40.60(c)(2), replace "NRC's Document Control Desk" with "Department" and replace "appropriate NRC regional office listed in appendix D to part 20 of this chapter" with "Department";

32. 10 CFR 40.61(d)(1), replace “Sec. 20.2002, 20.2003, 20.2004, 20.2005” with “N.J.A.C. 7:28-6”;

33. 10 CFR 40.61(d)(2), replace “Sec. 20.2103(b)(4)” with “N.J.A.C. 7:28-6”;

34. 10 CFR 40.61(e)(1), replace “Sec. 20.2002, 20.2003, 20.2004, 20.2005” with “N.J.A.C. 7:28-6”; and

35. 10 CFR 40.61(e)(2), replace “Sec. 20.2103(b)(4)” with “N.J.A.C. 7:28-6.”

(d) For those facilities whose radioactive materials are solely licensed by the Department, NRC Form 3, “Notice to Employees” shall mean the Department’s form RPP-14, “Notice to Employees, Standards for Protection Against Radiation” available from the Department in accordance with N.J.A.C. 7:28-50.1(d).

(e) Those facilities that possess a license from the Department and the NRC for radioactive materials shall post both the NRC’s Form 3, “Notice to Employees” and the Department’s form RPP-14, “Notice to Employees, Standards for Protection Against Radiation.”

(f) Reports that are to be submitted to the Department shall be submitted to the address at N.J.A.C. 7:28-1.5.

SUBCHAPTER 59. Licensing Requirements for Land Disposal of Radioactive Waste

7:28-59.1 Incorporation by reference

(a) Except as set forth in (b) and (c) below, this subchapter incorporates by reference 10 CFR Part 61, as supplemented or amended.

(b) The following provisions of 10 CFR Part 61 are not incorporated by reference. If there is a cross reference to a Federal citation specifically entirely excluded from incorporation, then the cross referenced citation is not incorporated by virtue of the cross reference:

1. 10 CFR 61.4, Communications;
2. 10 CFR 61.8, Information collection requirements: OMB approval;
3. 10 CFR 61.16, Other information and
4. 10 CFR 61.23(i), (j), Standards for issuance of a license.

(c) The following provisions of 10 CFR Part 61 are incorporated by reference with the specified changes:

1. "Nuclear Regulatory Department," "NRC," and "U.S. Nuclear Regulatory Department" as used in the provisions of the Code of Federal Regulations which are incorporated by reference, means the New Jersey Department of Environmental Protection, except when specifically noted.
2. 10 CFR 61.1(a), replace "part 20 of this chapter" with "N.J.A.C. 7:28-6";
3. 10 CFR 61.1(b)(3), replace "part 20 of this chapter" with "N.J.A.C. 7:28-6";
4. 10 CFR 61.7(c)(4), replace "Department" with "Department of Energy";
5. 10 CFR 61.12(k), replace "part 20 of this chapter" with "N.J.A.C. 7:28-6";

6. 10 CFR 61.13(c), replace “part 20 of this chapter” with “N.J.A.C. 7:28-6”;
7. 10 CFR 61.23(d), replace “part 20 of this chapter” with “N.J.A.C. 7:28-6”;
8. 10 CFR 61.52(a)(6), replace “Sec. Sec. 20.1301 and 20.1302 of this chapter” with “N.J.A.C. 7:28-6”;
9. 10 CFR 61.80(i)(1), delete “to the Director of the Division of Waste Management in the NRC’s Office of Nuclear Material Safety and Safeguards,” and replace “with a copy to the appropriate NRC Regional Office shown in appendix D to N.J.A.C. 7:28-6” with “to the Department”;
10. 10 CFR 61.80(l)(1)(i), replace “10 CFR part 20, appendix G” with “as is incorporated by reference in N.J.A.C. 7:28-6”;
11. 10CFR 61.24(k)(1), replace “NRC Regional Administrator” with Supervisor of the Radioactive Materials Section”;
12. 10 CFR 61.43, replace “part 20 of this chapter” with “N.J.A.C. 7:28-6”;
13. 10 CFR 61.1(b), replace “part 150 of this chapter” with “N.J.A.C. 9:28-62”;
14. 10 CFR 61.1(b)(2), replace “part 40 of this chapter” with “N.J.A.C. 9:28-58”;
15. 10 CFR 61.5, replace “by the General Counsel” with “Office of the State Attorney General”;

16. 10 CFR 61.7(c)(4), replace "Department" with "Department of Energy";
17. 10 CFR 61.9(a), replace "Administrator of the Appropriate Regional Office" with "Supervisor of the Radioactive Material Section";
18. 10 CFR 61.16, replace "part 70 of this chapter" with "N.J.A.C. 7:28-60";
19. 10 CFR 61.16, replace "§70.24" with "N.J.A.C. 7:28-60.24";
20. 10 CFR 61.16, replace "§70.24(d)" with "N.J.A.C. 7:28-60";
21. 10 CFR 61.20, replace "part 170 of this chapter" with "N.J.A.C. 7:28-64";
22. 10 CFR 61.61.23(j), replace "part 70 of this chapter" with "N.J.A.C. 7:28-60";
23. 10 CFR 61.23(j), replace "§70.24" with "N.J.A.C. 7:28-60";
24. 10 CFR 61.61.24(k)(1), replace "NRC Regional Administrator" with "Supervisor of the Radioactive Material Section";
25. 10 CFR 61.71, 10 CFR 61.7(2)(a), 10 CFR 61.73(a), 10 CFR 61.73(b), 10 CFR 61.73(c), replace "Director" with "Manager of the Bureau of Environmental Radiation";
26. 10 CFR 61.80(g), replace "§§30.55, 40.64" with "N.J.A.C. 7:28-51, N.J.A.C. 9:28-58 and §§";
27. 10 CFR 61.80(j), replace "§70.52 of this chapter" with "N.J.A.C. 7:28-60"; and

28. 10 CFR 61.80(k), replace “§§30.41, 40.51, and 70.42 of this chapter”
with “N.J.A.C. 9:28-51, 58, and 60.”

(d) For those facilities whose radioactive materials are solely licensed by the Department, NRC Form 3, “Notice to Employees” shall mean the Department’s form RPP-14, “Notice to Employees, Standards for Protection Against Radiation” available from the Department as discussed in N.J.A.C. 7:28-50.1(d).

(e) Those facilities who possess a license from the Department and the NRC for radioactive materials shall post both the NRC’s Form 3, “Notice to Employees” and the Department’s form RPP-14, “Notice to Employees, Standards for Protection Against Radiation.”

(f) Reports that are to be submitted to the Department shall be submitted to the address at N.J.A.C. 7:28-1.5.

SUBCHAPTER 60. DOMESTIC LICENSING OF SPECIAL NUCLEAR MATERIAL

7:28-60.1 Incorporation by reference

(a) Except as set forth in (b) and (c) below, this subchapter incorporates by reference 10 CFR Part 70, as supplemented or amended and regulations, orders, and licenses there under.

(b) The following provisions of 10 CFR Part 70 are not incorporated by reference. If there is a cross reference to a Federal citation specifically entirely excluded from incorporation, then the cross referenced citation is not incorporated by virtue of the cross reference:

1. 10 CFR 70.1(c) through (e), Purpose;
2. 10 CFR 70.2, definition of "Commission";
3. 10 CFR 70.5, Communications;
4. 10 CFR 70.8, Information collection requirements: OMB approval;
5. 10 CFR 70.13, Department of Defense;
6. 10 CFR 70.14, Foreign military aircraft;
7. 10 CFR 70.20a, General license to possess special nuclear material for transport;
8. 10 CFR 70.20b, General license for carriers of transient shipments of formula quantities of strategic special nuclear material, special nuclear material of moderate strategic significance, special nuclear material of low strategic significance, and irradiated reactor fuel;
9. 10 CFR 70.21(a)1, (c), and (f) through (h), Filing;
10. 10 CFR 70.22(b), (c), (f) through (n), Contents of application;
11. 10 CFR 70.23(a)(6) through (12), and (b), Requirements for the approval of applications;
12. 10 CFR 70.23a, Hearing required for uranium enrichment facility;
13. 10 CFR 70.24, Criticality accident requirements;
14. 10 CFR 70.25(a), Financial assurance and recordkeeping for decommissioning;
15. 10 CFR 70.31(c) through (e), Issuance of license;
16. 10 CFR 70.32(a)(1), (4) through (7), (b)(1), (3), (4), and (c) through (k), Conditions of licenses;

- 17. 10 CFR 70.37, Disclaimer of warranties;
- 18. 10 CFR 70.40, Ineligibility of certain applicants
- 19. 10 CFR 70.42(b)(6), Transfer of special nuclear material;
- 20. 10 CFR 70.44, Creditor regulations;
- 21. 10 CFR 70.51(c), Records requirements;
- 22. 10 CFR 70.52, Reports of accidental criticality;
- 23. 10 CFR 70.55(c), Inspections;
- 24. 10 CFR 70.59, Effluent monitoring reporting requirements;
- 25. 10 CFR 70.60, Applicability;
- 26. 10 CFR 70.61, Performance requirements;
- 27. 10 CFR 70.62, Safety program and integrated safety analysis;
- 28. 10 CFR 70.64, Requirements for new facilities or new processes at

existing facilities;

- 29. 10 CFR 70.65, Additional content of application;
- 30. 10 CFR 70.66, Additional requirements for approval of license

application;

- 31. 10 CFR 70.72, Facility changes and change process;
- 32. 10 CFR 70.74, Additional reporting requirements;
- 33. 10 CFR 70.76, Backfitting and

- 33. 10 CFR 70.82, Suspension and operation in war or national

emergency.

(c) The following provisions of 10 CFR Part 70 are incorporated by reference with the specified changes:

1. "Commission," "Nuclear Regulatory Commission," "NRC," and "U.S.

Nuclear

Regulatory Commission" as used in the provisions of the Code of Federal Regulations which are incorporated by reference, means the Department.

2. 10 CFR 70.4, in definition of "person", replace "Department" with "Department of Energy";

3. 10 CFR 70.11, replace "Department" with "Department of Energy";

4. 10 CFR 70.17(a), replace "Commission" with "Department, with approval of the Commission on Radiation Protection," and replace "by law and will not endanger life or property or the common defense and security and are otherwise in the public interest" with "in compliance with N.J.A.C. 7:28-2.8";

5. 10 CFR 70.19(c), delete , " 20," and add "and N.J.A.C. 7:28-6";

6. 10 CFR 70.21(d), replace "regulations contained in part 2 of this chapter" with "Open Public Records Act (P.L. 2001, c. 404)";

7. 10 CFR 70.25(g)(3)(i), replace "10 CFR 20.1003" with "N.J.A.C. 7:28-6";

8. 10 CFR 70.25(g)(3)(iii), replace "10 CFR 20.2108" with "N.J.A.C. 7:28-6," replace "10 CFR part 20, subpart E" with "N.J.A.C. 7:28-12" and replace "10 CFR 20.2002" with "N.J.A.C. 7:28-6";

9. 10 CFR 70.38(j)(2), replace "10 CFR part 20, subpart E" with "N.J.A.C. 7:28-12";

10. 10 CFR 70.38(k)(3)(i), replace “10 CFR part 20, subpart E” with “N.J.A.C. 7:28-12”;
11. 10 CFR 70.38(k)(3)(ii), replace “10 CFR part 20, subpart E” with “N.J.A.C. 7:28-12”;
12. 10 CFR 70.42(a)(1), replace "Department" with "Department of Energy”;
13. 10 CFR 70.50(b)(1)(ii), replace “Appendix B of Sec. Sec. 20.1001-20.2401 of 10 CFR part 20” with “N.J.A.C. 7:28-6”;
14. 10 CFR 70.50(b)(4)(i), replace “appendix B of Sec. Sec. 20.2001-20.2401 of 10 CFR part 20” with “N.J.A.C. 7:28-6”;
15. 10 CFR 70.50(c)(2), delete “to the NRC’s Document Control Desk,” and replace “with a copy to the appropriate NRC regional office listed in appendix D to part 20 of this chapter” with “to the Department”;
16. 10 CFR 70.51(a)(1), replace “10 CFR 20.2002, 20.2003, 20.2004, 20.2005” with “N.J.A.C. 7:28-6”;
17. 10 CFR 70.51(a)(2), replace “10 CFR 20.2103(b)(4)” with “N.J.A.C. 7:28-6”;
18. 10 CFR 70.51(b)(1), replace “10 CFR 20.2002, 20.2003, 20.2004, 20.2005” with “N.J.A.C. 7:28-6”;
19. 10 CFR 70.51(b)(2), replace “10 CFR 20.2103(b)(4)” with “N.J.A.C. 7:28-6”; and

17. 10 CFR 70.56, replace "(b) facilities wherein special nuclear material is utilized, produced or stored," with "and", and delete "(d) other equipment and devices used in connection with the production, utilization or storage of special nuclear material."

(d) Reports that are to be submitted to the Department shall be submitted to the address at N.J.A.C. 7:28-1.5.

SUBCHAPTER 61. PACKAGING AND TRANSPORTATION OF RADIOACTIVE MATERIAL

7:28-61.1 Incorporation by reference

(a) Except as set forth in (b) and (c) below, this subchapter incorporates by reference 10 CFR Part 71, as supplemented or amended.

(b) The following provisions of 10 CFR 71 are not incorporated by reference. If there is a cross reference to a Federal citation specifically entirely excluded from incorporation, then the cross referenced citation is not incorporated by virtue of the cross reference.

1. 10 CFR 71.6, Information collection requirements: OMB approval;
2. 10 CFR 71.10, Public inspection of application;
3. 10 CFR 71.14(b), Exemptions for low-level material;
4. 10 CFR 71.19, Previously approved package;
5. 10 CFR 71.31, Contents of application;
6. 10 CFR 71.33, Package description;
7. 10 CFR 71.35, Package evaluation;
8. 10 CFR 71.37, Quality assurance;

9. 10 CFR 71.38, Renewal of a certificate of compliance or quality

assurance program approval;

10. 10 CFR 71.39, Requirements for additional information;

11. 10 CFR 71.41, Demonstration of compliance;

12. 10 CFR 71.43, General standards for all packages;

13. 10 CFR 71.45, Lifting and tie-down standards for all packages;

14. 10 CFR 71.51, Additional requirements for Type B packages;

15. 10 CFR 71.55, General requirements for fissile material packages;

16. 10 CFR 71.59, Standards for arrays of fissile material packages;

17. 10 CFR 71.61, Special requirements for irradiated nuclear fuel

shipments;

18. 10 CFR 71.63, Special requirements for plutonium shipments;

19. 10 CFR 71.64, Special requirements for plutonium air shipments;

20. 10 CFR 71.65, Additional requirements;

21. 10 CFR 71.71, Normal conditions of transport;

22. 10 CFR 71.73, Hypothetical accident conditions;

23. 10 CFR 71.74, Accident conditions for air transport of plutonium;

24. 10 CFR 71.75, Qualification of special form radioactive material;

25. 10 CFR 71.77, Qualification of LSA-III material;

26. 10 CFR 71.101(c)(2), (d) through (e), Quality assurance requirements;

27. 10 CFR 71.107, Package design control;

28. 10 CFR 71.109, Procurement document control;

29. 10 CFR 71.111, Instructions, procedures and drawings;

30. 10 CFR 71.113, Document control;

31. 10 CFR 71.115, Control of purchased material, equipment and services;

32. 10 CFR 71.117, Identification and control of materials, parts and components;

33. 10 CFR 71.119, Control of special processes;

34. 10 CFR 71.121, Internal inspection;

35. 10 CFR 71.123, Test control and;

36. 10 CFR 71.125, Control of measuring and test equipment.

(c) The following provisions of 10 CFR 71 are incorporated by reference with the specified changes:

1. "Commission," "Nuclear Regulatory Commission," "NRC," and "U.S. Nuclear Regulatory Commission," as used in the provisions of the Code of Federal Regulations that are incorporated by reference, means "New Jersey Department of Environmental Protection," except make no replacement at:

i) 10 CFR 71.0(a)2 and (d)1;

ii) 10 CFR 71.4, definitions for "Certificate Holder," "Certificate of Compliance(CoC)" and "Package (3) Type B Package";

iii) 10 CFR 71.85(c), Preliminary determinations;

iv) 10 CFR 71.88(a)4, Air transport of plutonium;

v) 10 CFR 71.93(c), Inspections and tests;

vi) 10 CFR 71.95(a)(1) and (a)(2);

vii) 10 CFR 71.97(c)(1), (c)(3)(iii), and (f), Advance notification of shipment of irradiated reactor fuel and nuclear waste; and

viii) 10 CFR 71.101(f), Quality assurance requirements;

2. Replace “Commission” or “NRC” with “Department” in the following incorporated regulations:

i) 10 CFR 71.7, Completeness and accuracy of information;

ii) 10 CFR 71.8(b)1 and 71.8(d)1, Deliberate misconduct;

iii) 10 CFR 71.9, Employee protection;

iv) 10 CFR 71.17, NRC-approved package;

3. 10 CFR 71.0(b), delete “parts of this chapter (e.g., 10 CFR parts 20, 30, 40, 70 and 73),” and replace deleted text with “State Regulations (N.J.A.C. 7:28-6, 51, 58, and 60)” and add “U.S. Nuclear Regulatory Commission (NRC)” into the list of other agencies;

4. 10 CFR 71.1(a), replace rule text with “Except where otherwise specified, all communications and reports concerning the regulations in this part and applications filed under them should be sent to the Department as specified in N.J.A.C. 7:28-1.5.”;

5. 10 CFR 71.2, delete “General Counsel” and replace with “State Office of the Attorney General”;

6. 10 CFR 71.5(b), replace “Director, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, D.C., 20555-001” with “the Department in accordance with N.J.A.C. 7:28-1.5”;

7. 10 CFR 71.7(b), replace "Administrator of the appropriate Regional Office" with "Department";

8. 10 CFR 71.9(c), replace "Commission licensee, certificate holder, an applicant for a Commission license or a CoC" with "Department licensee, NRC certificate holder, an applicant for a Department license or NRC CoC";

9. 10 CFR 71.9(e)(1), replace "Each licensee, certificate holder, and applicant for a license or CoC must prominently post the current revision of NRC Form 3, 'Notice to Employees,' referenced in §19.11(c) of this chapter" with "Each licensee, certificate holder, and applicant for a license or CoC must prominently post the current revision of Department form RPP-14, 'Notice to Employees, Standards for Protection Against Radiation,' referenced in Subchapter 50";

10. 10 CFR 71.9(e)2, replace with "Copies of Department form RPP 14 may be obtained from the Department in accordance with N.J.A.C. 7:28-1.5.";

11. 10 CFR 71.12, replace "Commission" with "Department, with approval of the Commission on Radiation Protection," and replace "by law and will not endanger life or property nor the common defense and security and security" with "in compliance with N.J.A.C. 7:28-2.8";

12. 10 CFR 71.13, replace "10 CFR part 35" with "N.J.A.C. 7:28-55";

13. 10 CFR 71.47(b)(4), replace "10 CFR 20.1502" with "N.J.A.C. 7:28-6";

14. 10 CFR 71.89, replace "10 CFR 20.1906" with "N.J.A.C. 7:28-6";

15. 10 CFR 71.95(c), replace “§ 71.1(a)” with “N.J.A.C.7:28-1.5” and replace “report to: ATTN: Document Control Desk, Director, Spent Fuel Project Office, Office of Nuclear Material Safety and Safeguards” with “to the Department”;

16. 10 CFR 71.101(c)1, replace “§ 71.1(a)” with “N.J.A.C.7:28-1.5” and replace “report to: ATTN: Document Control Desk, Director, Spent Fuel Project Office, Office of Nuclear Material Safety and Safeguards” with “to the Department”; and 10 CFR 71.101(f), replace “NRC, in accordance with § 71.1(a)” with “Department, in accordance with N.J.A.C.7:28-1.5.”

(d) Reports that are to be submitted to the Department shall be submitted to the address at N.J.A.C. 7:28-1.5.

SUBCHAPTER 62. EXEMPTIONS AND CONTINUED NRC REGULATORY AUTHORITY IN AGREEMENT STATES AND IN OFFSHORE WATERS UNDER SECTION 274

7:28-62.1 Incorporation by reference

(a) Except as set forth in (b) and (c) below, this subchapter incorporates by reference 10 CFR Part 150, as supplemented or amended.

(b) The following provisions of 10 CFR Part 150 are not incorporated by reference: If there is a cross reference to a Federal citation specifically entirely excluded from incorporation, then the cross referenced citation is not incorporated by virtue of the cross reference:

1. 10 CFR 150.3, Definition of "Commission";

1. 10 CFR 150.7, Persons in offshore waters not exempt;

2. 10 CFR 150.8, Information collection requirements: OMB approval;
3. 10 CFR 150.10, Persons exempt;
4. 10 CFR 150.14, Commission regulatory authority for physical protection;
5. 10 CFR 150.15, Persons not exempt;
6. 10 CFR Part 150.15a, Continued Commission authority pertaining to byproduct material;
7. 10 CFR Part 150.16, Submission to Commission of nuclear material transfer reports;
8. 10 CFR Part 150.17, Submission to Commission of source material reports;
9. 10 CFR Part 150.17a, Compliance with requirements of US/IAEA safeguards agreement;
10. 10 CFR Part 150.19, Submission to Commission of tritium reports;
12. 10 CFR Part 150.21, Transportation of special nuclear material by aircraft;
13. 10 CFR 150.31, Requirements for Agreement State regulation of byproduct material; and
14. 10 CFR 32, Funds for reclamation or maintenance of byproduct material.

(c) The following provisions of 10 CFR Part 150 are incorporated by reference with the specified changes:

1. "Commission," "Nuclear Regulatory Commission," "NRC," and "U.S. Nuclear Regulatory Commission" as used in the provisions of the Code of Federal

Regulations which are incorporated by reference, means the New Jersey Department of Environmental Protection.

2. 10 CFR 150.4, replace “Executive Director for Operations, U.S. Nuclear Regulatory Commission, Washington, DC 20555” with “Department.” Also, delete “Communications and reports may be delivered in person at the Commission’s offices at 2120 L Street NW., Washington, DC or at 11555 Rockville Pike, Rockville, MD.”

3. 10 CFR 150.20(b), references to specific sections of 10 CFR part 30 refer to N.J.A.C. 7:28-51, sections of 10 CFR part 40 refer to N.J.A.C. 7:28-58, and sections of 10 CFR part 70 refer to N.J.A.C. 7:28-60. Replace “parts 19, 20, and 71” with “N.J.A.C. 7:28-6, 50, and 61”, and replace “part 34” with N.J.A.C. 7:28-63”.

(d) The incorporation by reference of 10 CFR 150.20(b) shall not include the ability to issue general licenses to operate in areas of exclusive Federal jurisdiction and offshore waters, but only to Agreement State and NRC licensees that wish to operate within New Jersey’s jurisdiction in accordance with N.J.A.C. 7:28-50.1(d).

(e) Reports that are to be submitted to the Department shall be submitted to the address at N.J.A.C. 7:28-1.5.

SUBCHAPTER 63. LICENSES FOR INDUSTRIAL RADIOGRAPHY USING SEALED SOURCES AND RADIATION SAFETY REQUIREMENTS FOR SUCH INDUSTRIAL RADIOGRAPHIC OPERATIONS

7:28-63.1 Incorporation by reference

(a) Except as set forth in (b) and (c) below, this subchapter incorporates by reference 10 CFR Part 34, as supplemented or amended.

(b) The following provisions of 10 CFR Part 34 are not incorporated by reference. If there is a cross reference to a Federal citation specifically entirely excluded from incorporation, then the cross referenced citation is not incorporated by virtue of the cross reference:

1. 10 CFR 34.8, Information collection requirements: OMB approval.

(c) The following provisions of 10 CFR Part 34 are incorporated by reference with the specified changes:

1. "Commission," "Nuclear Regulatory Commission," "NRC," and "U.S. Nuclear Regulatory Commission" as used in the provisions of the Code of Federal Regulations which are incorporated by reference, means the New Jersey Department of Environmental Protection, except in 10 CFR 34.41(c), and 34.27(a) and (c)(1);

2. 10 CFR 34.1, delete "Parts 19, 20, 21, 30, 71, 150, 170, 171" and add "10 CFR Part 21 and N.J.A.C. 7:28-6, 50, 51, 61, 62 and 64";

3. 10 CFR 34.11, replace "on NRC Form 313, "Application for Material License," in accordance with the provisions of § 30.32 of this chapter," with an original application for a specific State license";

4. 10 CFR 34.13, replace "§ 30.33 of this chapter" with "N.J.A.C. 7:28-51";

5. 10 CFR 34.25(a), replace "10 CFR part 20" with "N.J.A.C. 7:28-6";

6. 10 CFR 34.27(d), replace "Director of Nuclear Material Safety and Safeguards" with "Manager, Bureau of Environmental Radiation";

7. 10 CFR 34.27(d), replace “Administrator of the appropriate Nuclear Regulatory Commission's Regional Office listed in appendix D of 10 CFR part 20 of this chapter "Standards for Protection Against Radiation" with “Manager, Bureau of Environmental Radiation”;

8. 10 CFR 34.33(a)(1), replace “Sec. 20.1601(a)(1) of this chapter” with “N.J.A.C. 7:28-6”;

9. 10 CFR 34.35(b), replace "10 CFR 71" with "N.J.A.C. 7:28-61”;

10. 10 CFR 34.42(c)(1), replace “10 CFR part 20 of this chapter” and “10 CFR part 20” with “N.J.A.C. 7:28-6” in both instances;

11. 10 CFR 34.42(c)(4), replace “§ 20.2203 of this chapter” with “N.J.A.C. 7:28-6”;

12. 10 CFR 34.43(a)(1), replace “Director, Office of Nuclear Material Safety and Safeguards, by an appropriate method listed in § 30.6(a)” with “Manager, Bureau of Environmental Radiation, by an appropriate method listed in N.J.A.C. 7:28-51”;

13. 10 CFR 34.43(b)(1), replace “in §§30.7, 30.9, and 30.10” with “N.J.A.C. 7:28-51”, replace "10 CFR parts 19 and 20“ with "N.J.A.C.7:28-6 and 50", and replace “10 CFR 71” with "N.J.A.C. 7:28-61”;

14. 10 CFR 34.43(c)(1), replace “in §§30.7, 30.9, and 30.10” with “N.J.A.C. 7:28-51”, replace "10 CFR parts 19 and 20“ with "N.J.A.C.7:28-6 and 50", and replace “10 CFR 71” with "N.J.A.C. 7:28-61”;

15. 10 CFR 34.45(a)(1), replace “10 CFR part 20” with “N.J.A.C. 7:28-6”;

16. 10 CFR 34.51, replace “10 CFR part 20” with “N.J.A.C. 7:28-6”;

17. 10 CFR 34.53, replace “§ 20.1902” with “N.J.A.C. 7:28-6” and replace “§ 20.1903” with “N.J.A.C. 7:28-6”;

18. 10 CFR 34.89(b)(2), delete ” 19, 20,” and add “and N.J.A.C. 7:28-6, 50, and 63” after “NRC regulations”, replace “§ 71.5” with “N.J.A.C. 7:28-61”, and replace “§ 150.20” with “N.J.A.C. 7:28-62”;

19. 10 CFR 34.101(a), replace “§ 30.50 and under other sections of this chapter, such as § 21.21, each licensee shall send a written report to the NRC’s Office of Nuclear Material Safety and Safeguards, Division of Industrial and Medical Nuclear Safety, by an appropriate method listed in § 30.6(a) of this chapter” with “N.J.A.C. 7:28-51 and under other sections of this subchapter or Federal rule such as § 21.21, each licensee shall send a written report to the Manager, Bureau of Environmental Radiation, by an appropriate method listed in N.J.A.C. 7:28-51”;

20. 10 CFR 34.101(b), replace “10 CFR 20.2203” with “N.J.A.C. 7:28-6”;

21. 10 CFR 34.101(c), replace “appropriate regional office listed in § 30.6(a)(2) of this chapter” with “Department”; and

22. 10 CFR 34.111, replace “Commission” with “Department, with approval of the Commission on Radiation Protection,” and replace “by law and will not endanger life or property or the common defense and security and are otherwise in the public interest” with “in compliance with N.J.A.C. 7:28-2.8”;

(d) Reports that are to be submitted to the Department shall be submitted to the address at N.J.A.C. 7:28-1.5.

From: Kathleen Schneider
To: Monica Orendi
Date: 2/20/2008 9:44:26 AM
Subject: Fwd: transboundary

>>> Dennis Sollenberger 2/19/2008 4:58 PM >>>
NJ - Additional Information.

>>> "Jenny Goodman" <Jenny.Goodman@dep.state.nj.us> 02/19/2008 4:56 PM >>>
Updated table. You will note that we deleted our Subchapter 6 and replaced it with 10 CFR 20
incorporated by reference.

Mail Envelope Properties (47BC3CC1.3A8 : 10 : 35124)

Subject: Fwd: transboundary
Creation Date 2/20/2008 9:44:17 AM
From: Kathleen Schneider

Created By: KXS@nrc.gov

Recipients

nrc.gov
TWGWPO03.HQGWDO01
MLO1 (Monica Orendi)

Post Office

TWGWPO03.HQGWDO01

Route

nrc.gov

Files	Size	Date & Time
MESSAGE	956	2/20/2008 9:44:17 AM
Transboundary Issues reorg.doc	65024	2/19/2008 4:58:18 PM

Options

Expiration Date: None
Priority: Standard
ReplyRequested: No
Return Notification:
Send Receipt/Notify when Opened

Concealed Subject: No
Security: Standard

Junk Mail Handling Evaluation Results

Message is not eligible for Junk Mail handling
Message is from an internal sender

Junk Mail settings when this message was delivered

Junk Mail handling disabled by User
Junk Mail handling disabled by Administrator
Junk List is not enabled
Junk Mail using personal address books is not enabled
Block List is not enabled

**NJ AGREEMENT STATE
TRANSBOUNDARY ISSUES**

N.J.A.C. Rule Subchapter	NRC Rule Title	10CFR	Compatibility	Comments*
Subchapter 1	General Provisions	Subpart A		
7:28-1.1	Purpose	20.1001	D	
7:28-1.1	Scope	20.1002	D	
7:28-1.4	Definitions	20.1003	A-D	Added definition for "diffuse" Changed "sanitary sewer system" to "domestic treatment works" and "residuals" to "sewage sludge" to be compatible with NJDEP Bureau of Pretreatment and Residuals regulations. Deleted all NRC definitions and incorporated into Subchapter 6.
		20.1004		
		20.1005		
7:28-1.5	Communications	20.1007	D	
Subchapter 12 7:28-12.1 <i>et seq.</i>	Radiological Criteria for License Termination	Subpart E		
7:28-12.1 and 7:28-12.2	General Provisions and Scope	20.1401	C	Changed 7:28-12.2(Applicability) to apply to source, certain special nuclear and by-product material. In addition, added licensee to those affected. Changed N.J.A.C. 7:28-12.10(d) (Minimum remediation standards for accelerator-produced, byproduct, and certain special nuclear materials) and 12.11(g) (Petition for alternative remediation standards for radioactive contamination) to require calculations to be performed out to the time of peak dose. Additional cleanup conditions under N.J.A.C. 7:28-12.4(c) in accordance with the Industrial Site Recovery Act.
7:28-12.8 and 7:28-12.10	Radiological Criteria for unrestricted use	20.1402	C	Dose criteria is 15 mrem/y. In addition must meet groundwater and surface water NJDEP criteria, increment of 3 pCi/L of radon allowed. Added 7:28-12.10 (Minimum remediation standards for accelerator-produced, by-product, and certain special nuclear materials).
7:28-12.11 and 7:28-12.12	Criteria for license termination under restricted use	20.1403	C	Same criteria as unrestricted use with all controls in place. All controls fail language in 7:28-12.11(e). Revised 12.12 (b)2. to include CFR language on

				financial assurance.
7:28-12.11	Alternate criteria for license termination	20.1404	C	Same criteria as unrestricted use with all controls in place. 100 mrem/y all controls fail. No allowance for 500 mrem/y.
7:28-12.12(c)	Public notification and public participation	20.1405	C	Added new section that mimics the Department's Technical Requirements for Site Remediation.
7:28-12.15	Minimization of contamination	20.1406	C	
Subchapter 2	Exemptions and Additional Requirements	Subpart O		
7:28-2.13	Violations	20.2401	D	
Subchapters adopted by reference				
7:28-6	Standards for Protection Against Radiation	20		Did not incorporate 1401 through 1405; 10 CFR 1001 and 1002 are in N.J.A.C. 7:28-1.1; 10 CFR 2401 is in N.J.A.C. 7:28-2.13
7:28-50	Notices, Instructions & Reports to Workers	19		
7:28-51	Rules of General Applicability to Domestic Licensing	30		
7:28-52	General Licenses	31		
7:28-53	License to Manufacture or Transfer Certain Items Containing Radioactive Materials	32		
7:28-54	Broad Scope Licenses	33		
7:28-55	Medical Use of Radioactive Materials	35		Administration of radiopharmaceuticals to humans will require the use of a dose calibrator. NRC currently only requires the use of this instrument for certain administrations to humans.
7:28-56	Irradiators	36		
7:28-57	Well Logging	39		
7:28-58	Source Material	40		
7:28-59	Licensing Reqs. for Land Disposal of Rad. Waste	61		
7:28-60	Domestic Licensing of Special Nuclear Materials	70		
7:28-61	Packaging and Transportation of Radioactive Materials	71		
7:28-62	Exemptions and Continued Reg. Auth. In Agreement States and in Offshore Waters under Section 274	150		
7:28-63	Licenses for Industrial Radiography and	34		

	Radiation Safety Requirements for Industrial Radiographic Operators			
7:28-64	Fees			Used State specific costs to determine fees.

*No comment means language is identical to CFR.