

APPLICATION for RADIOACTIVE MATERIALS LICENSE

New Jersey Department of Environmental Protection
 Bureau of Environmental Radiation
 Radioactive Materials Program
 P.O. Box 420 (Mail Code 25-01)
 Trenton, NJ 08625-0420
 Tel. (609) 984-5462
 Fax. (609) 633-2210
 Website: <http://www.agreementstate.nj.gov>



1. Name and mailing address of licensee applicant

2. This application is for:
 New License
 Renewal of license number: _____

3. Address(es) where licensed material will be used or possessed (attach additional sheets if necessary)

3a.

3b.

3c.

4. Person to be contacted about this application
 Name: Telephone:
 Facsimile: E-mail:

5. Radioactive Material:

Element & Mass #	Form	Maximum possession limit
a		
b		
c		
d		
e		
f		

6. Proposed use

7. Radiation Safety Officer name, training, experience, telephone #, and email Attachments Enclosed

8. Training program for individuals working in or frequenting restricted areas Attachments Enclosed

9. Facilities and equipment Attachments Enclosed

10. Radiation safety program Attachments Enclosed

11. Waste Management Attachments Enclosed

12. License fee Categories: _____ **Amount enclosed \$**

13. Certification: 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. I also acknowledge management's commitment and responsibility for the following:

- Radiation safety, security and control of radioactive materials, and compliance with regulations
- Completeness and accuracy of the radiation safety records and all information provided to NJDEP
- Knowledge about the contents of the license and application
- Compliance with current NJDEP and Department of Transportation (DOT) regulations and the licensee's operating and emergency procedures.
- Commitment to provide adequate resources (including space, equipment, personnel, time, and, if needed, contractors) to the radiation protection program to ensure that the public and workers are protected from radiation hazards and meticulous compliance with regulations is maintained
- Notifying NJDEP regarding changing the Radiation Safety Officer (RSO).
- Prohibition against discrimination of employees engaged in protected activities.
- Commitment to provide information to employees regarding the employee protection and deliberate misconduct provisions in N.J.A.C. 7:28-1 et seq.
- Obtaining NJDEP's prior written consent before transferring control of the license.
- Notifying NJDEP, Bureau of Environmental Radiation in writing, immediately following filing of petition for voluntary or involuntary bankruptcy.

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.

Name & Title of Certifying Official (Administrator) **Signature & Date** **Telephone number:**

**NJ Department of Environmental Protection
BUREAU OF ENVIRONMENTAL RADIATION
RADIOACTIVE MATERIALS PROGRAM
PO BOX 420 (Mail Code 25-01)
TRENTON, NEW JERSEY 08625-0420
Radioactive Material License Application Instructions**

REGULATIONS:

Use of radioactive material in New Jersey is governed by New Jersey Administrative Code Title 7, Department of Environmental Protection, Chapter 28, Radiation Protection Programs (N.J.A.C. 7:28 at <http://www.state.nj.us/dep/rpp/rms/reg.htm>). The Department incorporated the federal regulations at 10 CFR 19, 20, 30 through 36, 39, 40, 61, 70, 71 and 150 with some changes. See N.J.A.C. 7:28-51.1 (see 10 CFR 30) for byproduct material license applications, license renewals, and license amendments, N.J.A.C. 7:28-4 for diffuse NARM license applications (water treatment systems, contaminated sites, and accelerator-produced activation products), N.J.A.C. 7:28-58 (10 CFR 40) for source material licenses, N.J.A.C. 7:28-60 (10 CFR 70) for special nuclear material licenses, and N.J.A.C. 7:28-61.1 (see 10 CFR 71) for packaging and transportation of radioactive material.

GUIDANCE:

The United States Nuclear Regulatory Commission (NRC) has produced a series of technical reports (NUREG-1556 series, "Consolidated Guidance About Materials Licenses") providing program-specific guidance. These reports (the series contains 21 volumes) facilitate the processes of license application, NJDEP review of applications, renewal of licenses, and NJDEP inspection of licenses. This series of reports also provides a comprehensive source of reference information about materials regulation for those involved in various aspects of licensed materials use. Be sure to use the most recent guidance in preparing an application.

The format within these documents for each item of technical information is as follows:

- Regulations – references the regulations applicable to the item;
- Criteria – outlines the criteria used to judge the adequacy of the applicant's response;
- Discussion – provides additional information on the topic sufficient to meet the needs of most readers;
- Response from Applicant – provides suggested response(s), offers the option of an alternative reply, or indicates that no response is needed on that topic during the licensing process.

Each volume of NUREG-1556 includes an Appendix that provides the suggested format for providing information requested in Items 5 through 11 of NJRAD Form 313. Using the suggested wording of responses and committing to using the model procedures in the NUREG-1556 Volume reports will expedite NJDEP's review. In those instances where a specific "Response from Applicant" is provided, the response is to be included as part of the application.

NUREG 1556 Series is found here: <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/>

AMENDMENTS:

The licensee is obligated to keep the license current. If any of the information provided in the original application changes in a way that requires an amendment to the license as specified in the regulations or in the NUREG-1556 series, or in any way affects specific items concerning NJDEP jurisdiction, the licensee must submit an application or a letter to request a license amendment to reflect the change, before the change takes place. The licensee should identify the specific changes in the amendment request and discuss the basis for the changes. See N.J.A.C. 7:28 Subchapter 64 for appropriate fee schedule.

INSTRUCTIONS:

1. Answers to each item must be preceded with the number of the item being answered. Use guidance specified below for your category of license.
2. For a new license application, do not make reference to documents previously filed with the State or any other government agency.
3. For license renewal, include all requested attachments except for the training and experience documents for the existing Radiation Safety Officer, existing authorized users and existing authorized medical physicists, if applicable, on the current license.
4. Avoid submitting proprietary information unless it is absolutely necessary.
5. Do not submit personal information about employees.
6. Do not submit copies of NJDEP licenses. You may reference a New Jersey license with the License number.
7. Provide a financial assurance if required per N.J.A.C. 7:28-51.1, 58.1, or 60.1 (see 10 CFR 30.35, 40.36 and 70.25). Contact the NJDEP for assistance on interpreting these regulations and/or templates for financial instruments.
8. Use Guidance in Section M below for change of control and bankruptcy documentation.
9. Use form NJRAD-101 http://www.nj.gov/dep/rpp/rms/agreedown/rm_fee_ws.xls to calculate the fees required for this application. Note, a renewal application does not require a fee.
10. Submit an original, signed application and all attachments. The NJDEP suggests that the submittal be sent return receipt. Retain one copy of the license application for your records.
11. Please call the Radioactive Materials Section at 609-984-5462 with any questions regarding completion of a New Jersey radioactive material license application.
12. Form NJRAD-313 must be signed and the license fee check (payable to “Treasurer, State of New Jersey”) must be enclosed. To ensure adequate management involvement, **a management representative must sign the submitted application acknowledging management's commitments and responsibility.**

Categories of Licenses

A. Portable Gauge:

Follow the guidance in NUREG1556 Volume 1, Rev 2: <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v1> and complete each section including the “response from applicant.” In addition to the application checklist in an appendix to the NUREG submit: 1) make, model and serial number for all gauges and 2) make and model of all sealed sources.

B. Industrial Radiography

Follow the guidance in NUREG1556 Volume 2: <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v2/> and complete each section including the “response from applicant.” In addition to the application checklist in an appendix to the NUREG, submit: 1) make and model number of exposure devices & source exchangers, 2) make and model numbers of each sealed source, 3) request a separate maximum possession limit for each radionuclide. If applicable, submit make, model and serial number of each calibrator.

C. Fixed gauge

Follow the guidance in NUREG1556 Volume 4: <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v4/> and complete each section including the “response from applicant.” In addition to the application checklist in an appendix to the NUREG, submit: 1) make, model and serial number for each gauge 2) make, model number and activity of each sealed source and 3) maximum possession limit for each radionuclide.

D. Self-shielded irradiator

Follow the guidance in NUREG1556 Volume 5: <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v5/> and complete each section including the “response from applicant.” In addition to the application checklist in an appendix to the NUREG, submit: 1) make, model and serial number of the device, 2) make, model and activity of each sealed source, and 3) maximum possession limit for each radionuclide.

E. Part 36 Irradiator

Follow the guidance in NUREG1556 Volume 6: <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v6/> and complete each section including the “response from applicant.” In addition to the application checklist in an appendix of the NUREG, submit: 1) make and model of the irradiator including year built 2) maximum activity of each sealed source, and 3) maximum possession limit for each radionuclide.

F. Academic, research and development and other programs of *limited scope* including gas chromatographs, X-ray fluorescence analyzers and veterinary medicine

Follow the guidance in NUREG1556 Volume 7: <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v7/> and complete each section including the “response from applicant.” In addition to the application checklist in an appendix of the NUREG, if applicable, submit make, model and activity of each sealed source.

For gas chromatography devices and X-ray fluorescence analyzer applications in addition to the application checklist in an appendix to the NUREG, submit: 1) the make, model and serial number of each device 2) make and model number of all sealed, foil or plated sources. If applicable, submit make, model and serial number of each calibrator.

G. Medical Use

Follow the guidance in NUREG1556 Volume 9 Revision 2: <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v9/r2/> and submit EVERY appropriate requested information and “response from applicant” provided. An application checklist is provided in an appendix to the NUREG.

The NRC’s “Procedures for Recognizing Certification Processes of Specialty Boards”, and other important guidance may be found on the NRC’s web page regarding the medical use of byproduct material: <http://www.nrc.gov/materials/miau/med-use-toolkit.html>

H. Broad Scope

The definition of and requirements for a broad scope license for byproduct material may be found at N.J.A.C. 7:28-54.1 (see 10 CFR 33). Follow the guidance in NUREG1556 Volume 11: <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v11/>. In addition to the application checklist in an appendix of the NUREG, submit information on sealed sources in your possession. Check in this Instructions document, A through M, for the type of device containing the sealed source for the information needed.

I. Possession for manufacturing and distribution

Follow the guidance in NUREG1556 Volume 12: <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v12/>. An application checklist is provided in an appendix to the NUREG. In addition to the application checklist in an appendix of the NUREG, submit information on sealed sources in your possession. Check in this Instructions document, A through M, for the type of device containing the sealed source for the information needed.

J. Commercial Radiopharmacy

Follow the guidance in NUREG1556 Volume 13, Rev 1: <https://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v13/r1/> . In addition to the application checklist in an appendix of the NUREG, submit information on sealed sources in your possession. Check in this Instructions document, A through M, for the type of device containing the sealed source for the information needed.

K. Non-Commercial Production/Distribution

Follow the guidance in NUREG1556 Volume 21: <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v21/> . An application checklist is provided in an appendix to the NUREG. In addition to the application checklist in an appendix of the NUREG, submit information on sealed sources in your possession. Check in this Instructions document, A through M, for the type of device containing the sealed source for the information needed.

L. Well logging

Follow the guidance in NUREG1556 Volume 14: <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v14/> . An application checklist is provided in an appendix to the NUREG. In addition to the application checklist in an appendix to the NUREG, submit the make, model and serial numbers of each sealed source.

M. Changes of control and bankruptcy involving byproduct, source or special nuclear materials

Follow the guidance in NUREG1556 Volume 15: <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v15/> . It also contains criteria NJDEP will use for evaluating such a notification and determining whether a new or amended license is needed.

N. Authorizing distribution to general licensees

Follow the guidance in NUREG1556 Volume 16: <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v16/> . In addition to the application checklist in an appendix of the NUREG, submit information on sealed sources in your possession. Check in this Instructions document, A through M, for the type of device containing the sealed source for the information needed.

O. Special Nuclear Material of less than Critical Mass Quantities

Special Nuclear Material, as defined in N.J.A.C. 7:28-60.1 (see 10 CFR 70.4), means plutonium (Pu), uranium (U)-233, uranium enriched in the isotope 233 or in the isotope 235, and any other material that the NJDEP determines to be special nuclear material or any material artificially enriched by any of the foregoing. Typical uses include: experiments using sub-critical assemblies; foil activation experiments using Pu-238/Beryllium (Be) sources; instrument calibration; student instruction in radiation detection and measurement; nuclear pacemakers; and U-235 target foils experiments. To prepare a license application for possession of special nuclear material of less than critical mass quantities follow NUREG 1556 Volume 17: <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v17/> . An application checklist is provided in an appendix to the NUREG.

P. Service Provider

Follow the guidance in NUREG 1556 Volume 18: <https://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v18/> . An application checklist is provided in an appendix to the NUREG. In addition, service providers that perform source exchanges, installations and removals, or maintenance on Category 1 or 2 sources are required to submit detailed procedures regarding these functions. Service providers addressed in this NUREG are limited to licensed entities providing the following types of commercial services:

- Installation, relocation, removal from service, disposal, radiation surveys, routine and preventive maintenance, adjustment of equipment, training of personnel or repair of devices containing licensed materials.
- Installation, relocation, removal from service, disposal, radiation surveys, routine or preventive maintenance, adjustment, training or repair of Part 36 irradiators.
- Installation, radiation surveys, routine and preventive maintenance, adjustment or repair of remote afterloaders, teletherapy, or gamma stereotactic radiosurgery units that require access to the sealed source(s), driving units, or other electronic components that could expose the sealed source, reduce the shielding, or compromise the radiation safety of the device or safety systems.
- Calibration of survey instruments and personnel dosimetry equipment.
- Leak testing of sealed sources, including analyzing the leak test kits or smears.
- Environmental sample analysis.
- Training of personnel using sealed sources.
- Calibration of medical dose calibrators.
- Nuclear laundry services.
- Waste management services including:
 - Commercial incineration
 - Compaction, Super Compaction
 - Solidification or vitrification
 - Packaging and repackaging of radioactive waste for transportation.
- Decontamination and decommissioning services.
- Site characterization services.

Q. License for Drinking Water Treatment Systems

Water Treatment Systems that accumulate naturally occurring radioactive materials above exempt quantities (N.J.A.C. 7:28-4.5) in their treatment operations are required to obtain a specific New Jersey radioactive material license before treatment operations commence. Follow the specific guidance below to assist in completing the application.

For item number 5:

- **Radioactive Material:** Determine the accumulated amount of radium or uranium by assuming the treatment system is 100% effective (removes all radionuclides from the raw water). Based on the results of the raw water samples (pCi/L), the liters of water treated, and the amount of time between backwashes or media exchange, an estimate of the accumulated activity (in millicuries) may be calculated. Show your work and include units.

For item number 9:

- Describe the treatment facility in detail. Provide diagrams of where the treatment facility will be located and proximity to occupied areas.

For item number 11:

- Describe the method of waste disposal which will be either discharge to a domestic treatment works or septic (for systems that backwash) or media exchange and subsequent disposal at a facility permitted (or licensed) to accept technologically enhanced naturally occurring radioactive materials.

This application is NOT for:

RECIPROCITY:

Refer to N.J.A.C. 7:28-62.1 (see 10 CFR 150) for recognition of licenses from other jurisdictions. See <http://www.state.nj.us/dep/rpp/rms/agreedown/FAQs.pdf> for guidance on reciprocity licenses and <http://www.state.nj.us/dep/rpp/rms/agreedown/Reciprocity.pdf> for the reciprocity application.

LICENSE OR SITE TERMINATION:

If a licensee wishes to terminate one or many NJDEP radioactive material licenses or sites on a license, the Administrator must sign and submit form NJRAD-314 <http://www.state.nj.us/dep/rpp/rms/agreedown/Termination.pdf> License termination is only in effect after the licensee receives a letter stating such per NJDEP.

GENERAL LICENSES:

See <http://www.state.nj.us/dep/rpp/rms/agreedown/FAQs.pdf> for guidance on our general license program. If required, the NJDEP will send an annual certification based on reports from manufacturers and distributors for devices that require registration.

EXEMPT DISTRIBUTION:

Licensing for the distribution of exempt quantities of byproduct material is under the jurisdiction of the NRC.