

# STATE OF MAINE

## APPLICATION FOR A RADIOACTIVE MATERIAL SERVICE PROVIDER LICENSE

**INSTRUCTIONS:** *This application complies with the license requirements of Section C of the State of Maine Radiation Protection Rule (SMRPR). Complete items 1 through 12. Supplemental sheets may be needed for items 5 through 11. Mail the completed application to: Radiation Control Program, 11 State House Station, Augusta, Maine, 04333. Telephone: (207) 287-5676. Facsimile: (207) 287-3059. E-Mail: radiation.dhhs@maine.gov*

The Department of Health and Human Services (DHHS) does not discriminate on the basis of disability, race, color, creed, gender, age, or national origin, in admission to, access to or operations of its programs, services, or activities or its hiring or employment practices. This notice is provided as required by Title II of the Americans with Disabilities Act of 1990 and in accordance with the Civil Rights Acts of 1964 as amended, Section 504 of the Rehabilitation Act of 1973 as amended, the Age Discrimination Act of 1975, Title IX of the Education Amendments of 1972 and the Maine Human Rights Act. Questions, concerns, complaints, or requests for additional information regarding the ADA may be forwarded to the DHHS' ADA Compliance/EEO Coordinator, State House Station #11, Augusta, Maine 04333, 207-287-4289 (V) or 207-287 3488 (V), TTY: 800-606-0215. Individuals who need auxiliary aids for effective communication in programs and services of DHHS are invited to make their needs and preferences known to the ADA Compliance/EEO Coordinator. This notice is available in alternate formats, upon request.

### 1. THIS IS AN APPLICATION FOR (check one)

|                          |                               |                 |
|--------------------------|-------------------------------|-----------------|
| <input type="checkbox"/> | NEW LICENSE                   | Office Use Only |
| <input type="checkbox"/> | RENEWAL of license number >   |                 |
| <input type="checkbox"/> | AMENDMENT of license number > |                 |

### 2. NAME AND MAILING ADDRESS OF APPLICANT

### 3. ADDRESS(ES) WHERE MATERIAL BE WILL USED AND/OR STORED.

|        |       |
|--------|-------|
|        |       |
| PHONE: | PHONE |

### 4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

NAME:

PHONE:

ADDRESS: (If different from #2.)

E-Mail:

**For items 5 through 11, the requested information may be submitted on standard size paper. Answer all items. For any that do not apply, answer by giving the item number with "not applicable" after it.**

**5. RADIOACTIVE MATERIAL:** provide the following information using the tables below or by attaching a description:  
(Check or complete the appropriate boxes)

- ☐ Identify each radionuclide that will be used in each sealed source/device.
- ☐ Identify the manufacturer or distributor and model number of each sealed source/device.
- ☐ Confirm that each sealed source/device combination listed and approved in the SSD registry for the purpose intended.
- ☐ Confirm that the activity per source/maximum activity per device specified in the SSD registration certificate will not be exceeded.

**SEALED SOURCES/DEVICES POSSESSED INCIDENT TO PROVIDING SERVICES**

| Radioisotope | Mfg. / Model No. and SSD Certificate No. | Quantity |
|--------------|------------------------------------------|----------|
|              |                                          | Bq<br>Ci |
|              |                                          | Bq<br>Ci |
|              |                                          | Bq<br>Ci |
|              |                                          | Bq<br>Ci |

**SOURCE MATERIAL**

| Radioisotope |                  | Quantity  |
|--------------|------------------|-----------|
|              | Depleted Uranium | Kilograms |
|              | Uranium-238      | Kilograms |
|              | Thorium-232      | Grams     |
|              | Other: Specify   | Grams     |

**UNSEALED or UNCONTAINED MATERIALS**

| Radioisotope | Chemical or Physical Form    |                                 |                                |                                         | Total Activity Requested |
|--------------|------------------------------|---------------------------------|--------------------------------|-----------------------------------------|--------------------------|
|              | <input type="checkbox"/> Gas | <input type="checkbox"/> Liquid | <input type="checkbox"/> Solid | <input type="checkbox"/> Other: Specify | Bq<br>Ci                 |
|              | <input type="checkbox"/> Gas | <input type="checkbox"/> Liquid | <input type="checkbox"/> Solid | <input type="checkbox"/> Other: Specify | Bq<br>Ci                 |
|              | <input type="checkbox"/> Gas | <input type="checkbox"/> Liquid | <input type="checkbox"/> Solid | <input type="checkbox"/> Other: Specify | Bq<br>Ci                 |
|              | <input type="checkbox"/> Gas | <input type="checkbox"/> Liquid | <input type="checkbox"/> Solid | <input type="checkbox"/> Other: Specify | Bq<br>Ci                 |
|              | <input type="checkbox"/> Gas | <input type="checkbox"/> Liquid | <input type="checkbox"/> Solid | <input type="checkbox"/> Other: Specify | Bq<br>Ci                 |

*An **Emergency Plan** must be provided if it is required (C.7.G).  
If Financial Assurance is required, then **Evidence of Financial Assurance** must be provided*

**6. PURPOSE FOR WHICH LICENSED MATERIAL WILL BE USED:** Provide a description for which each source will be used.

- ☐ Leak Test Analysis
 ☐ Environmental Sample Analysis
 ☐ Instrument/Dosimeter Calibration  
☐ Instruction

Possession Incident to performing the following services on sealed sources and devices:

- ☐ Installation
 ☐ Radiation Surveys
 ☐ Removal  
☐ Disposal
 ☐ Relocation
 ☐ Repair  
☐ Source Exchange
 ☐ Routine Maintenance
 ☐ Non-routine Maintenance  
☐ Source Retrieval
 ☐ Transportation
 ☐ Packaging  
☐ Leak Test Sample Acquisition
 ☐ Customer Training
 ☐ Storage  
☐ Other services not identified above, excluding activities involving critical mass quantities of special material:

**7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE:**  
**Radiation Safety Officer** - Include the specific training and experience or alternate information demonstrating the proposed RSO is qualified by training and experience. Form HHE851 or equivalent along with copy of certificates included with application.

Name:

Telephone:

Address:

Fax:

E-mail:

|                                                                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------|
| We will ensure that the RSO is authorized to stop unsafe operation; and has sufficient time to perform radiation safety duties and responsibilities. |
|------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------|
| Provide a copy of an organizational chart by position, demonstrating day-to-day oversight of the radiation safety activities. |
|-------------------------------------------------------------------------------------------------------------------------------|

**8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS:** On a separate sheet, list the names of all individuals who will use or directly supervise use of the radioactive material(s) listed in 5 above. Complete Form HHE851 for each individual and include copies of training certificates

**8.1 Authorized Users:**

|                                                                                                                            |
|----------------------------------------------------------------------------------------------------------------------------|
| Before using licensed material, authorized users will receive the training described in Appendix H of NUREG-1556, Vol. 18. |
|----------------------------------------------------------------------------------------------------------------------------|

|                                                                                            |
|--------------------------------------------------------------------------------------------|
| <b>OR</b> Submit description of the training and experience for proposed authorized users. |
|--------------------------------------------------------------------------------------------|

**8.2 Ancillary Personnel**

|                                                                                                                                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Before using licensed material, ancillary personnel will have successfully completed the classroom training portion of the training course described in Appendix H of NUREG-1556, Vol. 18. |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>OR</b> Submit description of the radiation safety training program, including topics covered, groups of workers, assessment of training, qualifications of instructors, and the method and frequency of training. |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**8.3 Refresher Training:**

|                                            |
|--------------------------------------------|
| We will provide annual refresher training. |
|--------------------------------------------|

**9. FACILITIES AND EQUIPMENT:** Describe your facility where the source will be used and/or stored.

|                                                                                                                                                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Provide a diagram/drawing to scale of the facility(s) identifying areas where radioactive materials, including radioactive wastes, will be used, handled or stored. Show the relationship and distance between restricted areas and adjacent unrestricted areas. |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------|
| Provide a description of the equipment to be made available at each location where unsealed radioactive material will be used or handled. |
|-------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------|
| Provide a description of the engineered safety systems, e.g., area monitors, interlocks, alarms, etc. at each location. |
|-------------------------------------------------------------------------------------------------------------------------|

|                                                                                                                                                                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Provide a diagram, when applicable, that identifies areas where radioactive materials may become airborne. The diagram should contain descriptions of the ventilation systems, with pertinent airflow rates, filtration equipment, sample collection points, and monitoring systems. |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**10. RADIATION SAFETY PROGRAM:** Describe your Radiation Safety Program.

**10.1 Audit Program:**

|  |                                                                                                                                                                             |
|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | Management will conduct an annual audit of the Radiation Safety Program meeting the criteria of Appendix I to NUREG-1556, Vol. 18 and maintain the records for three years. |
|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**10.2 Radiation Monitoring Instruments:**

|  |                                                                                                                                                                                                                                                                            |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | We will use instruments that meet the radiation monitoring instrument specifications published in Appendix J to NUREG-1556, Vol. 18.                                                                                                                                       |
|  | <b>OR</b> We will use instruments that meet the radiation monitoring instrument specifications published in Appendix J to NUREG-1556, Vol. 18. Additionally, we will implement the model survey meter calibration program published in Appendix J to NUREG-1556, Vol. 18.  |
|  | <b>OR</b> Submit a description of alternate equipment and/or procedure for ensuring that appropriate radiation monitoring equipment will be used during licensed activities and that proper calibration and calibration frequency of survey instruments will be performed. |

|  |                                                                      |
|--|----------------------------------------------------------------------|
|  | We reserve the right to upgrade our survey instruments as necessary. |
|--|----------------------------------------------------------------------|

**10.3 Material Receipt and Accountability:**

|  |                                                                                                                                 |
|--|---------------------------------------------------------------------------------------------------------------------------------|
|  | Ordering licensed material and package receipt and opening will follow the model procedures in NUREG-1556, Vol. 18, Appendix K. |
|  | <b>OR</b> Submit a description of procedure (s) for ordering licensed material and package receipt and opening.                 |

|  |                                                                                                           |
|--|-----------------------------------------------------------------------------------------------------------|
|  | Provide a description of procedure(s) for ensuring material accountability of unsealed licensed material. |
|--|-----------------------------------------------------------------------------------------------------------|

**10.4 Occupational Dose:**

|  |                                                                                                                                                                                            |
|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | We will maintain documentation demonstrating that unmonitored individuals are unlikely to receive, in one year, a radiation dose in excess of 10% of the allowable limits of SMRPR Part D; |
|  | <b>OR</b> We will provide dosimetry processed and evaluated by a NVLAP approved processor that is exchanged at a frequency recommended by the processor.                                   |

|  |                                                                                                                                  |
|--|----------------------------------------------------------------------------------------------------------------------------------|
|  | We will provide a bioassay program that meets the guidelines of Regulatory Guide 8.20 when using unsealed radioactive materials. |
|  | <b>OR</b> Submit a description of an alternate method for demonstrating compliance with the referenced regulations.              |

**10.5 Public Dose:**

|  |                                                                                                                                                                                                                                                                                                               |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | We will ensure that licensed material will be used, transported, stored, and disposed of in such a way that members of the public will not receive more than 1 mSv (100 mrem) in one year, and the dose in any unrestricted area will not exceed 0.02 mSv (2 mrem) in any one hour, from licensed operations. |
|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|  |                                                                                                     |
|--|-----------------------------------------------------------------------------------------------------|
|  | We will control/maintain constant surveillance of licensed material when in use and not in storage. |
|--|-----------------------------------------------------------------------------------------------------|

|  |                                                                                          |
|--|------------------------------------------------------------------------------------------|
|  | We will secure licensed material from access, removal, or use by unauthorized personnel. |
|--|------------------------------------------------------------------------------------------|

## 10.6 Operating and Emergency Procedures:

|  |                                                                                                                                                                                                                                      |
|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | We will develop, implement and maintain a procedure for obtaining an agreement with customers outlining the responsibilities of both the customer and service provider, when performing service operations at a customer's facility. |
|  | We will develop, implement and maintain instructions for handling and using licensed materials.                                                                                                                                      |
|  | We will develop, implement and maintain security procedures during storage and transportation.                                                                                                                                       |
|  | We will develop, implement and maintain instructions to keep licensed material under control and immediate surveillance during use.                                                                                                  |
|  | We will develop, implement and maintain steps to keep radiation exposures ALARA.                                                                                                                                                     |
|  | We will develop, implement and maintain steps to maintain accountability during use.                                                                                                                                                 |
|  | We will develop, implement and maintain steps to control access to work sites.                                                                                                                                                       |
|  | We will develop, implement and maintain steps to take and whom to contact when an emergency occurs.                                                                                                                                  |
|  | We will develop, implement and maintain instructions for using remote handling tools when handling sealed sources, except low-activity calibration sources.                                                                          |
|  | We will develop, implement and maintain methods and occasions for conducting radiation surveys, including surveys for detecting contamination.                                                                                       |
|  | We will develop, implement and maintain procedures to minimize personnel exposure during routine use and in the event of an incident, including exposures from inhalation and ingestion of licensed unsealed materials.              |
|  | We will develop, implement and maintain methods and occasions for locking and securing stored licensed materials.                                                                                                                    |

### **We will develop and maintain procedures for the implantation and adherence to good health physics practices while performing service operations:**

|  |                                                                                                                                                  |
|--|--------------------------------------------------------------------------------------------------------------------------------------------------|
|  | Minimization of distance to areas, to the extent practicable, where licensed materials are used and stored.                                      |
|  | Maximization of survey frequency, within reason, to enhance detection of contamination.                                                          |
|  | Segregation of sealed sources and tracer materials to prevent cross-contamination.                                                               |
|  | Segregation of radioactive material from explosives.                                                                                             |
|  | Segregation of potentially contaminated areas from clean areas by barriers or other controls.                                                    |
|  | We will develop, implement and maintain procedures for personnel monitoring, including bioassays, and the use of personnel monitoring equipment. |

|  |                                                                                                                                                                                                                                                                                                                                                                                                |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | We will develop, implement and maintain procedures for transporting licensed material to temporary job sites, packaging of licensed materials for transport in vehicles (private or common carrier), placarding of vehicles when needed, and physically securing licensed material in transport vehicles during transportation to prevent accidental loss, tampering, or unauthorized removal. |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|  |                                                                                                                                                                 |
|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | We will develop, implement and maintain procedures for picking up, receiving, and opening packages containing licensed materials, in accordance with Part D.32. |
|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|

|  |                                                                                                                                             |
|--|---------------------------------------------------------------------------------------------------------------------------------------------|
|  | We will develop, implement and maintain instructions for maintaining records in accordance with the regulations and the license conditions. |
|--|---------------------------------------------------------------------------------------------------------------------------------------------|

|  |                                                                                                                                                                                                                                                                                              |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | We will develop, implement and maintain procedures and actions to be taken if a sealed source is ruptured, including actions to prevent the spread of contamination and minimize inhalation and ingestion of licensed materials and actions to obtain suitable radiation survey instruments. |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|  |                                                                                                                |
|--|----------------------------------------------------------------------------------------------------------------|
|  | We will develop, implement and maintain instructions for the proper storage and disposal of radioactive waste. |
|--|----------------------------------------------------------------------------------------------------------------|

|  |                                                                                                                                                                                                                                               |
|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | We will develop, implement and maintain procedures to be followed on the event of uncontrolled release of radioactive unsealed licensed material to the environment, including notification of the RSO, the Agency, and other State agencies. |
|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Service providers who perform specific operations involving sealed sources such as inspection and maintenance of devices, and removal and replacement of sealed sources:**

|  |                                                                                                                                                                                          |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | We will provide appropriate procedures and instructions for these operations in the operating and emergency procedures.                                                                  |
|  | <b>OR</b> We commit to follow the manufacturer's procedures for inspection, maintenance, source exchange, and operations that involve access to the sealed source(s) and safety systems. |

**10.7 Surveys:**

|  |                                                                                                                                                                    |
|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | We will survey our facility and maintain contamination levels in accordance with the survey frequencies and contamination levels published in NUREG-1556, Vol. 18; |
|  | <b>OR</b> Submit description of alternative method for demonstrating how to evaluate a radiological hazard.                                                        |

**10.8 Leak Tests:**

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | Leak tests, when required by the license, will be performed at intervals approved by the Agency, NRC or Agreement State and specified in the SSD registration sheet and leak tests will be performed by an organization authorized by the Agency, NRC or Agreement State to provide leak testing services to other licensees or using a leak test kit supplied by an organization authorized by the Agency, NRC, or Agreement State to provide leak test kits to other licensees and according to the kit supplier's instructions; |
|  | <b>OR</b> Leak testing will follow the model procedures in Appendix O to NUREG 1556, Vol. 18;                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|  | <b>OR</b> Leak testing procedures and analysis will be done by the applicant. Provide the information in supporting a request to perform leak testing, (Appendix O to NUREG 1556, Vol. 18)                                                                                                                                                                                                                                                                                                                                         |

**In addition, if you will distribute leak test kits to customers:**

|  |                                                                                                                                                        |
|--|--------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | We will provide leak test kits as described in the model leak test kit description in Section 8.9.8 of NUREG 1556, Vol. 18;                            |
|  | <b>OR</b> Provide a sample of the kits that will be distributed for each type of sealed source/device combination for which you will provide analysis. |

**10.9 Maintenance:**

|  |                                                                                                                                                                               |
|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | We will implement and maintain procedures for routine maintenance of our device according to each manufacturer's (or distributor's) written recommendations and instructions; |
|  | <b>OR</b> Submit alternative procedures.                                                                                                                                      |

**Non-routine Maintenance:**

|  |                                                                                                                                                          |
|--|----------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | We will have the device manufacturer (or distributor) or other person authorized by the Agency, NRC, or Agreement State perform non-routine maintenance; |
|  | <b>OR</b> Submit the information listed in Appendix P to NUREG-1556, Vol. 18.                                                                            |

**10.10 Transportation:**

|  |                                                                                                                                                                               |
|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | We will develop, implement, and maintain safety programs for transport of radioactive material to ensure compliance with the Agency, NRC, Agreement State and DOT regulations |
|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**11. WASTE MANAGEMENT:**

|  |                                                                                                                                                      |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | We will use the model waste procedures published in Appendix N of NUREG 1556, Vol. 18;                                                               |
|  | <b>OR</b> We will use the Decay-In-Storage model waste procedures that are published in Appendix N of NUREG 1556, Vol. 18;                           |
|  | <b>OR</b> We will use the Disposal of Liquids into Sanitary Sewerage model waste procedures that are published in Appendix N of NUREG 1556, Vol. 18; |
|  | <b>OR</b> Provide procedures for waste collection, storage, and disposal by any of the authorized methods described in NUREG 1556, Vol. 18.          |

- 12. CERTIFICATION:** The applicant and any official executing this certificate on behalf of the applicant named in item 2, certify that this application is prepared in conformity with the State of Maine Radiation Protection Rule and that all information contained herein, including any supplements attached hereto, is true and correct to the best of our knowledge and belief.

DATE:

SIGNATURE OF APPLICANT:

TITLE:

TYPED/PRINTED NAME: