

# STATE OF MAINE

## APPLICATION FOR A RADIOACTIVE MATERIAL LICENSE FOR SELF-SHIELDED IRRADIATOR USE

**INSTRUCTIONS:** *This application complies with the license requirements of Section C of the State of Maine Rules Relating to Radiation Protection (SMRRRP). 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 12, 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 FOR SELF-SHIELDED IRRADIATOR USE and**

**6. PURPOSE FOR WHICH MATERIAL WILL BE USED:** Provide the following information: element and mass number for each, chemical and/or physical form, and maximum amount of possession at any one time. NOTE: for sealed sources include manufacturer, model number, and maximum activity of the source. (include calibration date if applicable). Provide a description for which each source will be used. For sealed source devices and/or storage containers include manufacturer, model number, and distributor for each in possession.

Radioisotope	Form or Manufacturer /Model No.	Maximum Quantity	Purpose of Use
		Ci Bq	
		Ci Bq	
		Ci Bq	
		Ci Bq	
		Ci Bq	

*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***

**7. INDIVIDUALS RESPONSIBLE FOR RADIATION SAFETY PROGRAM - Radiation Safety Officer:** Include information that meets the requirements described in Appendix G in NUREG-1556, Vol. 5 (October 1998) or alternate Information that the 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.
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**8. AUTHORIZED USERS:** 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 Initial training:** Must be completed before irradiator use.

	Complete training described in Appendix G to NUREG-1556, Vol. 5;
	<b>OR</b> Submit a description of the alternate training and experience requirements for proposed users.

**8.2 Refresher Training:**

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

	We will ensure that each area where an irradiator is located corresponds to the “Conditions of Normal Use” and “Limitations and/or Other Considerations of Use” on the applicable irradiator’s Sealed Source and Device Registration Certificate; the floor beneath an irradiator is adequate to support the weight of the irradiator; each irradiator is secured to prevent unauthorized access or removal; each area where an irradiator is located is equipped with and automatically operated fire detection and control system (sprinkler, chemical, or gas) or the location of the area and other controls ensure a low-level radiation risk attributable to fires;
	<b>OR</b> Submit alternate information and justification for placing an irradiator in an area that does not correspond to “Conditions of Normal Use” and “ Limitations and/or Other Considerations of use”.

**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 in NUREG-1556, Vol. 5 and maintain the records for three years.
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**10.2 Radiation Monitoring Instruments:**

	We will use instruments that meet the radiation monitoring instrument specifications published in NUREG-1556, Vol. 5 and additionally each survey meter will be calibrated by the manufacturer or other person authorized by the NRC/AS to perform survey meter calibration;
	<b>OR</b> We will use instruments that meet the radiation monitoring instrument specifications published in NUREG-1556, Vol. 5, and additionally we will implement the model survey instrument calibration program in NUREG-1556, Vol. 5;
	<b>OR</b> Submit a description of alternative equipment and/or procedures for ensuring that interlocks function, as required, to return moving irradiator sources to the shielded position and/or determining source shielding integrity after an incident involving the irradiator.

**10.3 Material Receipt and Accountability:**

	Physical inventories will be conducted at intervals not to exceed 6 months, to account for all sealed sources and devices received and possessed under the license;
	<b>OR</b> Submit a description of the procedures for ensuring that no irradiator has been lost, stolen, or misplaced and how often this will be done.

**10.4 Occupational Dosimetry:**

	We will perform a prospective evaluation demonstrating that unmonitored individuals are not likely to receive, in 1 year, a radiation dose in excess of 10% of the allowable limits established in Part D;
	<b>OR</b> We will provide dosimetry that meets the criteria in NUREG-1556, Vol. 5.

**10.5 Public Dose:**

We will ensure that irradiators will be used, transported and stored in such a way that members of the public will not receive more than 1 mSv (100mrem) 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.
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Submit a description of procedures to control and maintain constant surveillance over irradiators that are not in storage.
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Submit a description of procedures to prevent unauthorized access, removal, or use of irradiators in storage.
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**10.6 Operating/Emergency Procedures:**

Operating and emergency procedures will be developed, implemented, maintained, and distributed and will meet the criteria in NUREG-1556, Vol. 5;
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<b>OR</b> Submit alternate procedures.
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If we change our operating and emergency procedures without amending our license, we will ensure that: the changes are reviewed and approved by licensee management and the RSO; affected licensee staff are trained in the procedures before they are implemented; the changes are consistent with applicable license conditions and the procedures or commitments submitted in the license application; and the changes do not degrade the safety of the program.
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**10.7 Leak Tests:**

Leak tests will be performed at intervals approved by the NRC/AS and specified in the SSD Registration Certificate. Leak tests will be performed by an organization authorized by NRC/AS to provide leak testing services to other licensees or using a leak test kit supplied by an organization authorized by NRC/AS to provide leak test kits to other licensees and according to the self-shielded irradiator manufacturer's (or distributor's) and kit supplier's instructions;
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<b>OR</b> We will implement the model leak test program published in Appendix P to NUREG-1556, Vol. 5;
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<b>OR</b> Submit a description of alternative equipment and/or procedures for determining whether there is any radioactive leakage from sources contained in irradiators.
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**10.8 Routine Maintenance:**

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

We will have the irradiator manufacturer (or distributor ) or other person authorized by NRC/AS to perform non-routine maintenance;
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<b>OR</b> Submit the information listed in Appendix I to NUREG-1556, Vol. 5 .
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**10.9 Transportation:**

We will develop, implement, and maintain safety programs for transport of radioactive material to ensure compliance with NRC/AS and DOT regulations.
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**11. WASTE DISPOSAL – SELF-SHIELDED IRRADIATOR DISPOSAL & TRANSFER:**

	We will dispose of radioactive material by transfer to manufacturer or other licensee authorized to possess material.
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**12. TERMINATION:**

	We will notify, in writing, within 60 days, when principal activities have not been conducted for a period of 24 months or a decision is made to permanently cease licensed activities.
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**13. 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 Rules Relating to Radiation Protection 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: \_\_\_\_\_