



**MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH
RADIATION CONTROL PROGRAM**

**REGULATORY GUIDE NUMBER 2.0
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**GUIDE FOR THE PREPARATION OF APPLICATIONS FOR
LEAD PAINT DETECTORS WITH RADIOACTIVE SEALED SOURCES**

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Charlestown, MA 02129

MASSACHUSETTS RADIATION CONTROL PROGRAM
REGULATORY GUIDE
LEAD PAINT DETECTORS WITH RADIOACTIVE SEALED SOURCES

1.1 INTRODUCTION

This guide describes the type and extent of information required by this Radiation Control Program (Agency) to evaluate a license application for the possession and use of radioactive content of certain devices which detect and analyze the lead content of paint on surfaces. In general, licensing of devices containing cobalt-57 or cadmium-109 will be approved forthwith, though special license conditions may be imposed otherwise. Multiple devices may be licensed to the same organization in consideration of fee increments and increased administrative controls.

1.2 APPLICABLE RULES

In addition to 105 CMR 120.100, other regulations pertaining to Possession and use of portable lead paint detectors are subject to the following regulations.

- 105 CMR 120.001, *General Provisions*;
- 105 CMR 120.200, *Standards for Protection Against Radiation* describes radiation safety limits;
- 105 CMR 120.750, *Notices, Instructions, and Reports to Workers: Inspection* describes training information;
- 105 CMR 120.770, *Packaging and Transportation of Radioactive Material* describes limits for transporting materials; and
- 105 CMR 120.890, *Low-level Radioactive Waste Minimization Regulations General Provisions*.
- 40 CFR 172 and 173 (Department of Transportation)

1.3 LICENSE FEES

This license for possession and use of these devices is subject to an annual fee as determined by the executive office for Administration and Finance. The fee is sixty dollars per device annually, made payable in a check to the Commonwealth of Massachusetts.

1.4. FILING THE APPLICATION

A specific license application for the use of sealed radioactive sources contained in X-ray florescence analyzers should be submitted on form MRCP 120.100-5, *Radioactive Materials License Application for a Portable X-Ray Fluorescence Analyzer for the Detection and Analysis of Lead in Paint on Surfaces* (separately available on Agency website)

All items on the application form must be completed in sufficient detail for the Agency staff to determine if the applicant's equipment, facilities, and radiation protection program are adequate to protect health and minimize danger to life and property. The application must be approved and a validated copy of the license must be in the hands of the applicant before possession of the first device and any subsequent devices. Additional devices may be requested for and applied to the license.

Since the space provided on form MRCP 120.100-5 is limited, separate 8.5 by 11 inch sheets of paper may be appended for Items listed on the form. Each separate sheet should contain the item number and the application date in the lower right corner.

The application should be completed in triplicate. The original and one copy of the application, along with duplicate copies of supporting documents, must be mailed to: Massachusetts Department of Public Health, Radiation Control Program, Schrafft Center, Suite 1M2A, 529 Main Street, Charlestown, MA 02129. The applicant should keep a copy of the application and its supporting documents that it sends to the Agency.

1.5 CONTENTS OF THE APPLICATION

Items 1 and 2, Type of Application (new, amendment, or renewal) and Total Number of Devices

Self-explanatory

Item 3A and 3B Applicant's Name and Mailing Address and Address(es) where Device(s) will be Stored:

The "applicant" is the organization or person legally responsible for possession and use of the radioactive materials specified in the application. Individuals should be designated as the applicant only if they are acting in a private capacity and the use of radioactive material is not connected with their employment with a corporation or other legal entity. Enter the

name, mailing address and telephone number (including area code) of the applicant in the space provided on form MRCP 120.100-5.

Identify each address where a device may be stored. Submit a diagram of each storage area.

Items 4A and 4B Name, Contact Information and Qualification of Radiation Safety Officer:

For licenses listing a single user, the user is the radiation safety officer. For multiple users a specific radiation safety officer should be appointed. The duties of the radiation safety officer include (1) keeping the license up to date, (2) limiting use to authorized users (2) ensuring adequate physical security, (3) functioning in emergencies by rendering assistance and informing authorities as appropriate, (4) managing the conduct of leak tests and source replacement, (5) keeping the log of field use and other required records.

Items 5A and 5B Name and Qualification of Additional Users:

List individuals who, in addition to the radiation safety officer, will be involved in using the device. Attendance of vendor course including safety considerations as well as use of the device will satisfy the user training requirement for single user operations.

The radiation safety officer for a multiple user operation is expected to have completed the vendor course, to have some science training, and to have had at least six months in service as user of the device. In some instances, training obtained or supplemented through attendance of courses offered by agencies other than vendors may be considered at license review.

Item 6 Description of the Device:

Submit a detailed description of the x-ray florescence device for which a license is desired. This description should at least include the items listed in the table. Explain any information that is not known at time of application such as serial number if applicable.

Item 7 Physical Security:

The application should describe how every device will be maintained secure during (1) storage, (2) transportation, and (3) site use. Special problems may arise for devices stored in residences where children may live or be present so storage security in such instances should be thoroughly evaluated in the

application. In general, commitment to lock the devices in immobile steel enclosures, or lock boxes or locked cabinets, will be interpreted during license review to adequately fulfill storage requirements.

Item 8 Radiation Safety and Emergency Procedures:

Radiation Safety Procedures:

The applicant does not need to establish comprehensive radiation safety procedures because of the inherent radiation safety features of these devices. However, the applicant needs to provide radiation safety administrative protocols and information in the following areas:

1. Device will be used in accordance with the manufacturer's instruction manual.
2. Device will be only used by an authorized user that is approved and specified on the license and individuals have received appropriate training.
3. Leak Test will be performed on all licensed sealed sources or sealed source replacement received and possessed under this license in accordance with applicable regulations or requirements.
4. Logs will be maintained to ensure material accountability and security of licensed material and devices received and possessed under the license.
5. Records will be maintained of training, leak tests and source replacements.
6. Records will be maintained showing the receipt, transfer, and disposal of all licensed material received and possessed under the license.
7. Devices may not be transferred to non-licensed recipients.
8. 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.
9. User servicing of devices will not be allowed and is prohibited.
10. Report or apply for a license amendment that renders submitted applicant information not accurate due to

modifications or changes being proposed prior to implementation (e.g.; device storage location, mailing address, radiation safety officer, authorized users, device modifications specified on the license including subsequent additions or deletions, etc.)

11. Report license termination to Agency by completing form MRCP 120.100-3, *Certificate of Termination* when requesting to terminate the license.

Emergency Procedures:

Submit a copy of the written emergency procedures to be followed in the event of loss or theft or in case of an accident involving damage to the device(s) containing radioactive material. The instructions should:

1. Describe the immediate action to be taken in order to prevent possible contamination/radiation exposure to personnel.
2. Include the names and telephone numbers of the responsible individuals within the applicant's organization to be notified and who will, in turn, notify local police and the Radiation Control Program (617) 242-3453.

In addition, indicate where copies of these procedures will be maintained. There should be a copy posted near each device use or storage location.

Item 9 Certification:

The application must be signed and dated by the applicant, if acting as an individual, or by an individual who is authorized by management to sign on behalf of a company. A statement signed by corporate management granting authority to sign license requests and related documents are required for applications not signed by an officer of the corporation. Unsigned applications will be returned for a proper signature.