



Radioactive Material License Guide

Portable Gauges Application

**Louisiana Department of Environmental Quality
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RADIOACTIVE MATERIAL LICENSE APPLICATION

INSTRUCTIONS AND LICENSING GUIDE

Portable Gauges

- A. Any section in the application that is not applicable should be so designated.
- B. Material submitted on a separate attachment should be clearly identified. For example, Attachment A, Page 5, Item C.

LICENSE FEES:

A fee is required for all initial applications and for licenses that are required to be reissued. The applicant should refer to the Department's fee schedule in LAC 33:XV. Chapter 25 to determine the amount of the fee that must accompany the application. Review of the application will not begin until the proper fee is received by the Department. If you have any questions concerning the fee or the amount to submit, please do not hesitate to contact the Department.

FILING AN APPLICATION:

A license application for radioactive material should be submitted on Form DRC-11, Application for Radioactive Material License and Form DRC-13. The applicant should complete all items on the application form delineated in this licensing guide.

Submit one copy of the application and all attachments to the Department. The applicant should retain one copy, since the license will require as a condition that the licensee follow the statements and representations set forth in the application and any supplements following.

Since the space on Form DRC-11 may not be sufficient to contain all of the required information, additional sheets should be attached. Each separate sheet or document submitted with the application should be identified by heading indicating the appropriate item number. When completed, Form DRC-11 should be signed and dated by a representative of the licensee's management.

ALARA PROGRAM

Each licensee **shall** develop and implement a written program to maintain radiation doses and releases of radioactive material in effluents to unrestricted areas as low as reasonably achievable in accordance with LAC 33:XV.406.

To satisfy this requirement:

1. the management, radiation safety officer, and all authorized users shall participate in the establishment, implementation, and operation of the program as required by these regulations; or
2. for licensees that are not medical institutions, management and all authorized users shall participate in the program as required by the radiation safety officer.

The ALARA program shall include an annual review by management or the radiation safety officer of summaries of the types and amounts of radioactive material used, occupational dose reports and continuing education and training for all personnel who work with or in the vicinity of radioactive material. The purpose of the review is to ensure that individuals make every reasonable effort to maintain occupational doses, doses to the general public, and releases of radioactive material as low as reasonably achievable, taking into account the state of technology and the cost of improvements in relation to benefits.

The licensee shall retain a current written description of the ALARA program for the duration of the license. The written description shall include:

1. A commitment by management to keep occupational doses as low as reasonably achievable;
2. a requirement that the radiation safety officer brief management once each year on the radiation safety program;
3. personnel exposure investigational levels that, when exceeded, will initiate an investigation by the radiation safety officer of the cause of the exposure and a consideration of actions that might be taken to reduce or eliminate the probability of recurrence.

Please submit a copy of your ALARA program for the Department's review. A sample ALARA program is located at the end of this guide.

FORM DRC-11

APPLICATION FOR RADIOACTIVE MATERIAL LICENSE

Item 1 - Enter the name of the firm which holds the license, the address, telephone number, fax number, and email address.

Item 2 - Check appropriate box.

Item 3 - If the mailing address in Item 1 is a P. O. Box or if different from the location where the gauge is located, then enter the locations in the state where the gauge will be stored and used. You should specify each location of storage or use by the street address, city or other descriptive address (such as 5 mile east on Highway 90, Anytown, State). Also **clearly specify** whether a location is one at which operations will be conducted or whether the location is only for storage of sources and devices. If a device will be used in a permanent facility or facilities, you should give the specific address of each.

Item 4 - A qualified individual should be designated the responsibility for radiation protection. Individuals who will use or supervise the use of radioactive materials should be listed and the qualifications and training of those individuals given on the back of Form DRC-13, "Radiological Qualifications and Training." The individual responsible for your radiation safety program, as a minimum, should have completed the device manufacturer's training program or should have received equivalent training. If the responsible individual has completed the device manufacturer's program, you should state in your application the title of the course, where and when the course was completed, and the name of the course instructor.

If the responsible individual has received training other than that provided by the device manufacturer, you should state where and when the training was received, the topics covered in the training, and the name and qualifications of the training instructor.

Item 5 - Personnel Monitoring:

To determine compliance with the occupational dose limits of LAC 33:XV.410, licensees may be required to monitor external and internal occupational dose. Monitoring of external dose will be required if individuals are likely to receive in one year a dose in excess of 10% of the occupational dose limits for adults. Monitoring of internal dose will be required if individuals are likely to receive in one year an intake in excess

of 10% of the applicable annual limit on intake. **If you have determined that personnel monitoring is not necessary, submit your criteria for this determination.** If it is necessary, complete the information in Item 5.

Item 6a - Contamination Surveys:

Contamination surveys are not necessary for sealed sources.

Item 6b - Radiation Area Surveys:

Not required for portable density gauges.

Item 6c - Environmental Surveys:

Environmental surveys do not apply to sealed sources.

Item 7 - Leak Tests:

The present policy is to require a six month leak test interval.

Please state how this service will be performed. For example, it may be performed by the manufacturer, an outside consultant or by using an approved leak test kit.

Item 8 - Waste Disposal:

You should state that disposal will be by transfer of the radioactive material to a licensee specifically authorized to possess it. Authorized recipients are the original supplier of the device, a commercial firm licensed by the NRC or an Agreement State to accept radioactive waste from other persons, or another specific licensee authorized to possess the licensed material. No one else is authorized to dispose of your licensed material.

Item 9a - Health Physics Program:

Describe how maintenance will be performed and specify the individuals who will be responsible for this service. You should state that any maintenance you will perform (such as cleaning) will always be done with the radioactive source in the safe shielded position. You may **not** do any maintenance unless the source is safely shielded. To take the radioactive source out of the device, you must have special training and procedures,

use a radiation survey meter, and take appropriate radiation safety precautions. Your license must specifically authorize any maintenance, repair, etc., that would involve removing the source from the device or taking the source out of the safe shielded position.

You should provide your personnel with written operating and emergency procedures and you should state to the Department that you will provide the procedures to each person who uses the device. Please submit the detailed operating and emergency procedures to the Department for review. You should list the following topics covered in your procedures.

1. Use of the device. Step-by-step procedures for the use of the device. These procedures **do not have** to be submitted to the Department.
2. Storage of the device. Procedures for storage of the device when it is not in use or under the physical surveillance of a user.
3. Transportation. Procedures for transporting devices to and from work sites.

You must commit that the devices will be fully secured within the transportation vehicle and away from the passenger compartment and that the transportation of licensed material be carried out in accordance with Section 71.5 of 10 CFR Part 71 and U. S. Department of Transportation Regulations. It is your obligation to obtain a copy of the DOT regulations on transportation of radioactive materials. The requirements for package labeling are in Subpart E of 49 CFR Part 172 of the DOT Regulations. General requirements for shipping and packaging radioactive material are in Subpart I of 49 CFR Part 173 of the DOT regulations. You must state the packaging and transport of the device will be carried out in accordance with applicable DOT regulations.

4. Leak testing. Procedures for performing a leak test if the test will be done by individuals other than those specified in Item 7 of your application.
5. Emergency Procedures. Steps for workers to take, including individuals to be notified. **The Department should be notified whenever there is damage, fire or other unusual occurrence affecting the gauge and should be listed in your procedures, along with the correct telephone number, (225) 765-0160.**

6. Utilization Records

Each licensee should maintain current records, which would be kept available for inspection by the Department, showing the following information for each source of radiation:

- (a) make, model number, and a serial number of each source of radiation used;
- (b) the identity of the person to whom assigned; and
- (c) locations where used and dates of use.

Item 9b - Physical Facilities:

The application will be approved if, among other things, the applicant's proposed equipment and facilities are adequate to protect health and minimize danger to life or property. Therefore, you should provide information concerning your equipment and facilities. It is required that licensed material stored in an unrestricted area be secured from unauthorized removal from the place of storage and that licensed material in an unrestricted area and not in storage, be tended under the constant surveillance and immediate control of the licensee. Explain how this requirement will be met.

You should state that the device will be stored in a locked enclosure such as the transport vehicle, store room, closet, shed, etc., in a way that will prevent access by unauthorized persons. You should keep in mind that the device needs to be in storage or physically watched by authorized user at all times. It is not acceptable for a device to be chained to a post or left lying unattended at the place of use during lunch or breaks, because the device would then be accessible to unauthorized persons.

Item 10 - Health Physics Instrumentation:

Normally, health physics instrumentation will not be required, but any instruments available for radiation surveys or leak testing should be listed.

Item 11 - General Instrumentation:

This is not applicable, but you may list any other radiation detection instruments available, but not used for health physics surveys or monitoring.

Item 12 - Medical Supplements:

Not applicable.

Item 13 - Industrial Radiography Supplements:

Not applicable.

Item 14 - If a representative of another company assisted the applicant in completing the application, then their name and company affiliation should be listed.

DATE AND SIGNATURE: THE APPLICATION MUST BE SIGNED AND DATED.

FORM DRC -13

SCHEDULE OF RADIOACTIVE MATERIALS

Sealed Sources: Sealed sources should be entered in the following section:

Identify the isotope and quantity of the sealed source, the manufacturer of the source, model number and storage container in which the source will be stored, transferred or used. Indicate the particular use of each individual source and/or type of device or tool in which it will be employed.

NOTE: Radium sources are radioactive material and should be included in this application.

RADIOLOGICAL QUALIFICATIONS AND TRAINING:

Complete the requested information for all individuals under Item 4, "Radiation Program Personnel," Form DRC-11. This information may be submitted on a separate attachment if desired, but the attachment should be referenced.

ADDENDUM TO PERMIT APPLICATIONS:

The "ADDENDUM TO PERMIT APPLICATIONS PER LAC 33:I.1701. This form must be completed before a license can be issued. This form can be found at:
<http://www.deq.louisiana.gov/portal/tabid/240/Default.aspx>

SAMPLE ALARA PROGRAM

The following conditions describe the program followed by _____ to ensure that occupational radiation exposures to employees engaged in the use of radioactive equipment are kept as low as reasonably achievable.

1. MANAGEMENT COMMITMENT

_____ IS COMMITTED TO MAKE EVERY REASONABLE EFFORT TO MINIMIZE RADIATION EXPOSURES TO EMPLOYEES, THROUGH THE FOLLOWING CONTROL MEASURES:

- a. Personnel will be made aware of management's commitment to maintain low exposure levels.
- b. Management will periodically review operating procedures with radiation safety officer to determine steps taken to reduce exposures.
- c. Management will ensure that the person, or persons, selected for Radiation Safety Officer responsibilities are fully qualified to administer all aspects of a radiation protection program.
- d. Management will ensure that all employees engaged in the use of radioactive equipment are fully trained in the area of radiation safety. This will be reviewed at least once a year, and additional training will be scheduled as necessary.
- e. The RSO has full authority to enforce safe operation, and to communicate as required with appropriate levels of management to halt an operation he deems unsafe.

2. VIGILANCE BY THE RSO AND RADIATION PROTECTION STAFF

The RSO has the responsibility to monitor the Radiation Safety Program to ensure that exposures are as low as reasonably achievable, and to search for new and better ways to perform jobs with less exposure. The following aspects apply to this responsibility:

- a. The RSO shall know the origins of radiation exposure and be aware of trends in exposures.

- b. Should unusual exposures occur, the RSO shall initiate an investigation of the circumstances to determine causes and prevent the likelihood of recurrence. Operating procedures should periodically be reviewed to identify situations in which exposures can be reduced.

- c. The RSO shall be responsible for ensuring that the equipment used is maintained in good working order and used properly. Written procedures for use of the equipment are to be available and followed.

Printed Name: _____

Signature: _____
(Management)

Phone Number: _____

Fax Number: _____

E-mail address: _____