



**RADIOACTIVE MATERIAL LICENSE APPLICATION  
FOR INDUSTRIAL RADIOGRAPHY**

**INSTRUCTIONS:** Refer to OR-RH-11.30 for a detailed explanation of the requirements for completing this application. This application must be signed and dated. An application fee in the amount specified in Part 12 of the *Colorado Rules and Regulations Pertaining to Radiation Control* must accompany an application for a new license. Email the completed application and attachments to CDPHE\_hmradmat@state.co.us. Mail the fee payment (and the application and attachments, if they cannot be submitted electronically) to the Colorado Department of Public Health and Environment, Radiation Management Program, HMWMD-B2, 4300 Cherry Creek Drive South, Denver, Colorado 80246-1530. All radioactive materials licenses are issued in accordance with the general requirements contained in the State of Colorado *Rules and Regulations Pertaining to Radiation Control* and Title 25, Article 11, CRS.

1. Application for: New License: \_\_\_\_\_ Renewal: \_\_\_\_\_ of License No: \_\_\_\_\_  
Expiration Date: \_\_\_\_\_

Fee payment is attached (if new application).

2. Applicant Name: \_\_\_\_\_

3. Tax Payer Identification Number: \_\_\_\_\_

A Certificate of Good Standing from the Colorado Secretary of State is attached.

4. a) Mailing Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

b) Provide the specific address of each **permanent radiographic installation**, meaning an enclosed shielded room, cell, or vault, not located at a temporary jobsite, in which industrial radiography is performed.

Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

c) Provide the specific address of each **field station**, meaning a facility where radiography equipment will be stored, used, or from which equipment can be dispatched.

Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

d) Provide the specific address where all **records** required by the Regulations will be stored.

Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

e) Please indicate if applicable:

Radiography operations will be performed and/or sources of radiation may be stored at **temporary jobsites**.

5. a) Management contact: \_\_\_\_\_ Title: \_\_\_\_\_  
 Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
 E-mail Address: \_\_\_\_\_
- b) Radiation Safety Officer: \_\_\_\_\_  
 Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
 E-mail Address: \_\_\_\_\_

Attach documentation of the training and experience for the RSO that meets the requirements of Appendix 5B of the Regulations. Include certificates and exam results as appropriate. Attach a description of the RSO's specific duties and authorities.

The above listed radiation safety officer candidate resides within the state of Colorado

**NOTE:** Section 5.16.1 requires that, "The radiation safety officer shall ensure that radiation safety activities are being performed in accordance with approved procedures and regulatory requirements in the daily operation of the licensee's or registrant's program." As a result, approval of a radiation safety officer for industrial radiographic operations that does not reside in the state of Colorado and is not involved in the daily licensed operations is unlikely.

6. Billing contact(If different than management contact): \_\_\_\_\_  
 Title: \_\_\_\_\_ Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
 E-mail Address: \_\_\_\_\_

7. Radioactive Material

On an additional sheet, identify each radionuclide that will be used. Identify the manufacturer (or distributor) and model number of each sealed source, source assembly, exposure device, and/or source changer to be possessed, and the purpose(s) for which licensed material will be used. Identify the total number of sealed sources to be possessed. Identify any depleted uranium (total amount in kg) that is used as shielding material.

8. Radiation Detection Instruments

Sufficiently calibrated and operable radiation survey instruments should be kept at each location where sources of radiation are present. Provide the description and use of each radiation survey instrument. Attach additional sheets as necessary.

Manufacturer and model of instrument \_\_\_\_\_  
 Manufacturer and model of probe: \_\_\_\_\_ Surface area: \_\_\_\_\_  
 Radiation detected: \_\_\_\_\_ Number available: \_\_\_\_\_  
 Sensitivity ranges: \_\_\_\_\_ Efficiency (Intrinsic & Geometric): \_\_\_\_\_  
 Background reading: \_\_\_\_\_  
 How used: \_\_\_\_\_

## 9. Calibration of Radiation Detection Instruments

Frequency of calibration \_\_\_\_\_

Attach a copy of your calibration procedures, including the qualifications of the individuals who will perform the calibrations. If a commercial service is to be used, provide the name, address, and radioactive materials license number. All calibrations must be performed according to the procedures described and at the intervals prescribed in section 5.9 of the Regulations.

## 10. Occupational Dosimetry

Type of Device: Film Badge: \_\_\_\_\_ TLD/OSL: \_\_\_\_\_ Other: \_\_\_\_\_

Name of Supplier (must be NVLAP approved): \_\_\_\_\_

Radiation Detected: \_\_\_\_\_ Exchange Frequency: \_\_\_\_\_

Alarming Rate-meter manufacturer and model: \_\_\_\_\_

Pocket Dosimeter manufacturer and model: \_\_\_\_\_

Attach calibration procedures for alarming rate-meters and pocket dosimeters.

## 11. Facilities and Equipment

- A. Attach a description of the types of counting, handling, and safety equipment used in connection with radioactive materials.
- B. Attach an explanatory sketch of your facility(ies) and surroundings. Identify the locations of radioactive material storage, special handling equipment, storage containers, shielding (including shielding of floors and roof), safety equipment, etc. Describe entrance controls, visible and audible warning signals and alarm systems for permanent radiographic installations. Identify the locations where radioactive material warning signs, Notice to Employees, and emergency telephone numbers are posted.
- C. Will source exchanges be performed under this license? If so, please indicate on your facility diagram the specific area where source exchanges will be performed.
- D. Public dose limits: Attach calculations and/or survey results to demonstrate compliance with dose limits for members of the public at all storage and use locations. Be sure to include any locations where source exchanges will be performed.

## 12. Radiation Safety Program

Attach a description of your radioactive materials program. The information must reflect your current program and procedures. Your program should include detailed descriptions of:

- A. Overall organizational structure as it applies to the radiation safety responsibilities including specified delegation of authority and responsibility.
- B. An adequate program for training radiographers and radiographer's assistants that meets the requirements of 5.17, and also includes:
  1. The annual refresher training program (including topics to be covered and how the training will be conducted).
  2. Procedures for verifying and documenting the certification status of

radiographers and for verifying that their certification remains valid.

3. Procedures for inspecting the job performance of each radiographer and radiographers' assistant at intervals not to exceed 6 months.

- C. Material receipt and accountability.
- D. Leak tests.
- E. Quarterly maintenance and inspection of radiographic equipment.
- F. Operating and emergency procedures, to include, at a minimum:
  - 1. Handling and use of sealed sources and radiography exposure devices.
  - 2. Methods and occasions for conducting radiation surveys.
  - 3. Methods for posting and controlling access to radiographic areas.
  - 4. Methods and occasions for locking and securing radiographic exposure devices, storage containers, sealed sources, and source changers.
  - 5. Personnel monitoring and the use of personnel monitoring equipment.
  - 6. Transporting sealed sources to field locations, securing exposure devices and storage containers in vehicles, placarding vehicles when required, and controlling sealed sources during transportation.
  - 7. Daily inspection, operability checks, and maintenance of radiographic equipment.
  - 8. Procedures for source exchanges.
  - 9. Procedures for rate-meter alarms or off-scale dosimeter readings.
  - 10. Procedure for identifying and reporting defects and non-compliance as required by section 5.38 of the Regulations.
  - 11. Notification of proper persons in the event of an accident.
  - 12. Minimizing exposure of persons in the event of an accident, including a source disconnect, a transport accident, or loss of a source of radiation (emergency procedures).
  - 13. Source retrieval.
  - 14. Maintenance of records, including where records will be stored.

### 13. Waste Management

- A. Attach procedures for the disposal or transfer of radiography sealed sources containing byproduct material or devices containing depleted uranium; or
- B. If a commercial service is to be used other than to transport, specify the name, address, radioactive materials license number and expiration date of the company providing the services. Describe the types of services provided. NOTE: Companies providing this service must have a Radioactive Materials License that authorizes this service.

14. Is financial assurance required as per Part 3.9.5 of the Regulations? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, please attach documentation of how the financial assurance warranty will be met.

## 15. Increased Controls Requirements

- The possession limit requested exceeds the quantities of concern for radioactive materials and requires compliance with the specified enhanced protective measures as indicated in NRC Increased Controls Order EA 05-090. Documentation of compliance with the required protective measures is attached.

## 16. Radiation Machines

- Yes  No In addition to radioactive materials, radiation producing machines will be possessed at a facility listed on this application.
- Yes  No Any radiation producing machine(s) have been registered with the State of Colorado per Part 2 of the Regulations.

### COMMITMENTS

C1. All uses of radioactive materials will comply with the provisions of the State of Colorado *Rules and Regulations Pertaining to Radiation Control*: Part 3, "Licensing of Radioactive Material"; Part 4, "Standards for Protection Against Radiation"; Part 5, "Radiation Safety Requirements for Industrial Radiographic Operations"; Part 10, "Notices, Instructions and Reports to Workers; Inspections"; and Part 17, "Transportation of Radioactive Material".

C2. Individuals will be properly trained and certified according to the requirements of Section 5.17 of the Regulations before being permitted to act as a radiographer or radiographer's assistant.

C3. If radiographic operations or storage of sources of radiation at any location not listed on the license or registration will occur for a period in excess of 90 days in a calendar year, the licensee or registrant shall notify the Department prior to exceeding the 90 days.

C4. The maximum exposure rate limits for storage containers and source changers will be limited to 2 millisievert (200 mrem) per hour at any exterior surface, and 0.1 millisievert (10 mrem) per hour at 1 meter from any exterior surface with the sealed source in the shielded position.

**CERTIFICATION**

The applicant and each official executing this certificate on behalf of the applicant named in Item 2, certify that all information contained herein, including any supplements attached hereto, is true and correct to the best of our knowledge and belief. The applicant agrees to abide by all commitments herein, and the requirements of the radioactive materials license and the State of Colorado *Rules and Regulations Pertaining to Radiation Control*.

Management Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Typed or Printed Name: \_\_\_\_\_

Title of Official: \_\_\_\_\_

Radiation Safety Officer Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Typed or Printed Name: \_\_\_\_\_