



Texas Department of State Health Services Radiation Safety Licensing Branch

Regulatory Guide 2.1

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Guide for the Preparation of Radioactive Material License Applications for the Use of Industrial Radiographic Exposure Devices

I. INTRODUCTION

A. Licensing Process

The acquisition, possession, use, manufacture, production, transport, transfers and processing of radioactive material in Texas shall be authorized by the Texas Department of State Health Services (DSHS), Radiation Safety Licensing Branch. The branch issues such authorization as a license. A license indicates what type, quantity, form, and use of radioactive material is authorized and any special conditions under which the radioactive material shall be used. This guide describes the process for application for a license and for amendment, renewal, and termination of a license.

B. DSHS Contacts

The DSHS radiation control program maintains an Internet site. The site contains the rules and forms referenced in this regulatory guide, as well as information on who to contact at DSHS with questions, information on the activities and structure of the department, topics of interest about radiation, and links to other radiation-related web sites.

The DSHS Internet site is located at: <http://www.dshs.state.tx.us/radiation>

If you do not have access to the world-wide web and need additional information, please call (512) 834-6688 and ask for the following:

Industrial Licensing Program - for questions regarding the regulation of Industrial Radiographic Exposure Devices and the application for a radioactive material license and any related correspondence.

Regulatory Guides are issued to assist applicants and licensees/registrants in developing operational procedures acceptable to the Department of State Health Services, Radiation Safety Licensing Branch (department), that are compliant with specific sections of Title 25 Texas Administrative Code Chapter 289. Regulatory Guides are NOT substitutes for regulations and compliance with them is not required. Methods for compliance with regulations different from those set out in guides will be acceptable if they are considered by department staff to provide for public health and safety and demonstrate compliance with regulations.

Comments and suggestions for improvements in Regulatory Guides are encouraged. Letters containing comments and suggestions should be sent to the Department of State Health Services, Attn: Manger, Radioactive Material Licensing – MC 2835, P.O. Box 149347, Austin, Texas 78714-9347. Regulatory guides may be reproduced or may be obtained by contacting the department at (512) 834-6688 or accessing our web page at www.dshs.state.tx.us/radiation

II. APPLICABLE REGULATIONS

- A.** The requirements of the following sections of Title 25, Texas Administrative Code (TAC), Chapter 289, apply to the use of radioactive material in Industrial Radiographic Exposure Device operations:

§289.201 “General Provisions for Radioactive Material”

§289.202 “Standards for Protection Against Radiation from Radioactive Material”

§289.203 “Notices, Instructions, and Reports to Workers; Inspections”

§289.204 “Fees for Certificates of Registration, Radioactive Material Licenses, Emergency Planning and Implementation, and Other Regulatory Services”

§289.205 “Hearing and Enforcement Procedures”

§289.251 “Exemptions, General Licenses, and General License Acknowledgements”

§289.252 “Licensing of Radioactive Material”

§289.255 “Radiation Safety Requirements and Licensing and Registration Procedures for Industrial Radiography”

§289.257 “Packaging and Transportation of Radioactive Material”

- B.** It is the licensee's responsibility to ensure that its facility and any additional authorized sites are provided with copies of the applicable rules. These rules may be downloaded from the DSHS Internet site. If you do not have access to the world-wide web you may request one copy of the applicable rules. For a charge, you may request rules on disk or more than one hard copy of the rules.

III. FILING AN APPLICATION

A. GENERAL

25 TAC, Chapter 289, this guide, forms, and other guidance documents are available on the DSHS Internet site: <http://www.dshs.state.tx.us/radiation>. Each applicant must submit the following forms in duplicate:

- **RC Form 252-1 (Business Information Form)**

Applicants must sign and submit, in duplicate, a completed Business Information Form, including a certification statement of financial qualification to conduct the requested activity, including any decontamination, decommissioning, reclamation and disposal [25 TAC §289.251(ii)(8)].

III. FILING AN APPLICATION (Continued)

- **RC Form 252-2 (Application for Radioactive Materials License)**

Space provided on the application form is limited, so 8.5" x 11" paper should be used to append additional pages. Each page submitted with the application should be identified and keyed to the item number on RC Form 252-2 to which it applies. Two copies of the application and all attachments must be submitted, with another copy retained by the applicant. All application items must be addressed in sufficient detail to demonstrate that equipment, facilities, personnel qualifications and procedures are adequate to protect public health and safety or property.

B. LICENSE FEES

- **New Application**

A fee must be submitted with each new application. Refer to §289.204 to determine the fee that should accompany the application. Each additional storage site will add 25% to the base license application fee. An additional non-refundable fee, equaling 5% of the specified fee, shall be paid for deposit into the Radiation and Perpetual Care Account. You may contact the accounting office at (512) 834-6688 to verify the total application fee required. Review of the application will not begin until the proper fee is received by the DSHS. The check or money order should be made payable to the Department of State Health Services.

Mail the completed new license application and the required application fee to:

Texas Department of State Health Services
Radioactive Material Licensing – MC 2003
P.O. Box 149347
Austin, Texas 78714-9347

- **Biannual Fee**

Once a license has been issued, a nonrefundable fee must be paid biannually for each radioactive material license. The fee must be paid in full for 2 years on or before the last day of the expiration month of the license. For example, if the license expires September 30, 2009, the biannual fees are due on or before September 30 of each odd-numbered calendar year. You will receive a bill from the DSHS for your biannual fee approximately 60 days prior to the fee due date.

- **License Renewal or Amendment**

Do not submit a fee with the request for renewal or amendment. If an amendment changes or adds a category of license or adds an additional authorized use site, the biannual fee will be adjusted accordingly. The adjustments will be reflected on your next fee bill.

III. FILING AN APPLICATION (Continued)

The department maintains a separate address for regular correspondence. Submit your license renewal or amendment request to the following address:

Texas Department of State Health Services
Radioactive Material Licensing – MC 2835
P.O. Box 149347
Austin, Texas 78714-9347

C. COMPLETING THE APPLICATION

1. Submit RC Form 252-2, "Application for Radioactive Material License," for the use of Industrial Radiographic Exposure Devices.
2. Complete all items on the application in sufficient detail to allow the licensing reviewers to make a complete evaluation of the program for use of radioactive material in Industrial Radiographic Exposure Devices.
3. Submit two copies of the application and all attachments and keep a complete copy for your records.
4. Complete Items 1-15 on the application.
5. Additional sheets will be necessary to submit all of the information in items 8-15 on the application. Identify each separate sheet or document submitted with the application by referencing the application item number to which it refers.
6. Submit all documentation, including pages, sketches, and drawings, on 8-1/2 x 11 inch paper to ease handling and review. If larger drawings are necessary, they should be folded to 8-1/2 x 11 inches.

IV. CONTENTS OF AN APPLICATION

This section provides instructions on completing each item listed in RC Form 252-2, "Application for a Radioactive Materials License."

Item 1 – LEGAL BUSINESS NAME AND MAILING ADDRESS OF APPLICANT

List the name, a state of Texas mailing address, and telephone number of the individual or company to whom the license will be issued. If available, please include an e-mail address and fax number. Also complete and submit RC Form 252-1, "Business Information Form," available from the department's website.

An applicant corporation must be registered with the Texas Secretary of State's Corporations Section. If an assumed name is to be included, it will be identified as the name the applicant is doing business as (d/b/a) and must also be registered. For example, "ABC Corporation d/b/a ABC Enterprises of Texas." Business registration should be verified by contacting the Texas Secretary of State's Corporations Section at (512) 475-2755 or on the Internet at <http://www.sos.state.tx.us/corp/sosda/index.shtml>.

If the applicant is an individual, the individual should be acting in a private capacity, and the use of the radioactive material should not be connected with the individual's employment with a corporation or other legal entity.

IV. CONTENTS OF AN APPLICATION (Continued)

Item 2 - LOCATIONS WHERE RADIOACTIVE MATERIAL WILL BE USED

Specify all locations use and/or storage by designating the street address, city, and state, or provide a descriptive address (e.g., 5 miles E of FM Road 14 on Texas Highway 10, Anytown, Texas). A post office box address is not acceptable in Item 2. Note: The number of authorized sites will affect the amount of license fee. Each additional storage and/or records location will add 25% to the base license fee. Also, indicate whether Industrial Radiographic Exposure Devices will be used at temporary jobsites throughout Texas.

Item 3 – THIS IS APPLICATION FOR

Identify if the application is for a new license or renewal of an existing license. If the application is for renewal of a license, provide the existing license number.

Item 4 - LOCATION WHERE RECORDS WILL BE KEPT

This is the location that will be listed on the license as the main site and the site to which all correspondence is mailed unless a post office box service is maintained. The main site is the site where the Radiation Safety Officer is routinely available and can receive correspondence without delay; and where copies of records for the entire license are maintained for inspection by the department (except for some sub-site utilization records). Provide the physical address of the site to be designated as the main site.

Item 5 - INDIVIDUAL USERS AND THEIR TITLES

Submit a list of all radiographer trainers to be listed on the radioactive material license. If proposed individuals have never been qualified by the agency as a radiographer trainer before, submit RC Form 255-T (Radiographer Trainer Qualification) for each individual. The list of individual shall include their full name and titles, such as RSO or trainer. If your list is greater than four names, submit the information on a separate sheet clearly referenced Item 5 of the application.

Submit copies of RC Form 255-E (Radiographer Trainee Qualification) and RC Form 255-R (Radiographer Qualification) for qualification of individuals who have never been qualified/certified at the radiographer trainee and radiographer levels. Once an individual has completed the requirements to become a radiographer trainee or radiographer and you have submitted all required documentation to the agency, the licensee is not required to re-submit documentation for qualification at these levels.

Item 6 - RADIATION SAFETY OFFICER (RSO)

The RSO is the person designated to be responsible for the day-to-day radiation safety program. The RSO maintains all records required by the agency rules, and is the primary contact with the agency on matters pertaining to the license and the use of radioactive materials. The RSO must have the authority to enforce radiation safety policy, suspend activities deemed unsafe, and require remedial action when necessary. In accordance with 25 TAC §289.255(e)(4)(B), submit a resume for the RSO detailing applicable training and experience. The resume shall include:

- A copy of the RSO's high school diploma or certificate of high school equivalency based on the GED test;

IV. CONTENTS OF AN APPLICATION (Continued)

- Documentation of the successful completion of the training and testing requirement of 25 TAC §289.255(e)(1)(A) and (2)(A)(iii); and
- Two years of documented experience related to radiation protection, including knowledge of industrial radiographic operations with at least 40 hours of active participation in industrial radiographic operations.

After license issuance, if there is a change in RSO, request an amendment to the license as soon as possible. A listing of the duties and responsibilities of the RSO are given in 25 TAC §289.255(e)(4)(C). Include in your procedures the items which are applicable.

Item 7 – RADIOACTIVE MATERIALS DATA

- 7a.** List by isotope, such as iridium-192 (Ir-192), cobalt-60 (Co-60), etc.
- 7b.** Identify the manufacturer's name(s) and the model number(s) of the Sealed Sources.
- 7c.** Indicate the maximum number of sealed sources of each isotope to be possessed. Include the activity for each sealed source and the total activity of each isotope to be possessed for each model device (number of devices).
- 7d.** Describe the use of the device (e.g., moisture/density measurements of construction materials or soils) and give the manufacturer's name and model number of each device.

Licensees are encouraged to perform frequent inventory checks to guard against loss or theft.

Instrument Calibrators, Moisture/Density Gauges and XRF Gauges

If you wish to possess sealed sources other than industrial radiographic sources (i.e., any source that will not be used for performing radiography, such as instrument calibrators, portable moisture/density gauging, hand-held fluoroscopy or x-ray fluorescence analysis) provide the same information detailed above for each sealed source and device.

NOTE: This guide provides information necessary for licensing radioactive material used for industrial radiography. The agency maintains other regulatory guides for the submittal of information needed to license other uses of radioactive material. Please contact the Industrial Licensing Program to obtain the appropriate regulatory guides for uses other than industrial radiography.

Compatible Source Changers

Make sure that the sealed source/device/source changer combinations are compatible. You may designate multiple sealed sources and source changers when they are compatible with the specific exposure devices. An excellent source for information on source-device compatibility may be obtained using the world-wide web. All of the information necessary for Item 7 of the application is available from radioactive sealed source and exposure device manufacturers.

Item 8 – FACILITIES

The agency will not issue a license for industrial radiography use unless a fixed permanent storage facility is established in Texas, per 25 TAC §289.252(e)(8). In accordance with 25 TAC §289.255(u)(4)(B), permanent or temporary storage of industrial radiography sources in residences or in residential areas is prohibited.

IV. CONTENTS OF AN APPLICATION (Continued)

1. Describe the permanent storage facility for radioactive material, to include the following.
 - a. Indicate security precautions to be taken to prevent theft or unauthorized use of the radioactive materials.
 - b. Provide a sketch and/or description of the storage location for each radiographic device within the facility, indicating the proximity to work stations and activities of personnel working in the area.
 - c. Describe the storage location in relation to and distance from occupied areas within the facility and location of neighboring businesses and/or residences.
 - d. Indicate construction materials used and the dimensions of the storage location, including wall thicknesses.
 - e. Provide a description of the storage vault including a drawing with dimensions, and construction materials, calculated exposure levels or survey results based on the maximum source activity to be stored in the vault, shielding details, and types of locking devices. Information detailing the posting of the vault and storage area should also be included.
2. Identify the owner of the proposed storage facility. If the facility is owned by another company, provide a letter from the owner or the owner's agent, acknowledging that they are aware that you are storing and/or using devices containing radioactive material on the property.
3. Describe the temporary storage of radioactive material in transportation vehicles and facilities to include:
 - a. Dimensions and shielding information for transport containers or overpacks.
 - b. Posting guidelines for temporary storage facilities.
 - c. Precautions taken to prevent unauthorized removal of radioactive material from temporary storage facilities.
 - d. Provide detailed parameters that should be met prior to allowing devices containing radioactive material to be stored at temporary job sites. Parameters requiring verification include, as a minimum, property owner's approval, exclusive access, 24-hour access, construction materials, security/integrity, postings, security, vicinity, etc.
4. When a shielded room or exposure bay is used for radiography, submit a detailed description of the facility which includes the following.
 - a. Drawing or sketches of the shielded room or exposure bay and its surroundings, including the:
 - (i) dimensions of the enclosed area;
 - (ii) type and thickness of shielding material on all sides, including the floor and roof;
 - (iii) location of entries, and
 - (iv) a description of the areas adjacent to the shielded room or exposure bay.

IV. CONTENTS OF AN APPLICATION (Continued)

- b.** A description of the area safeguards such as locks, signs, and visible and audible signals. If an alternate system is to be used, provide a description of your system.

The results of radiation level calculations or actual radiation measurements adjacent to and above the facility should be included in your procedures. Clearly identify the type and position of each source within the facility that was used in your calculations or measurements.

Item 9 - OPERATING, SAFETY, AND EMERGENCY PROCEDURES

The purpose of operating, safety, and emergency procedures is to provide radiography personnel with clear and specific guidance and instructions for the use of radioactive material. The manual should include, but not be limited to the following topics:

1. Management Structure and Its Responsibilities Provide a description of the management structure, and the RSO's position in that structure. Describe the applicant's position on radiation safety in relation to the work environment.
2. Radiation Safety Officer Duties Explain the RSO's duties in the company with emphasis on overseeing the radiation safety program. Describe records of administration, radiation surveys, periodic field inspections, etc. that will be maintained by the RSO. You may refer to §289.255(e)(4) for a listing of the minimum duties to be completed by the RSO.
3. Individual Monitoring Devices (if necessary) Individual personnel monitoring is required in accordance with §289.255(p)(2)(A). Individual monitoring devices shall meet the requirements of §289.202.
4. Emergency Procedures Describe the actions to be taken by the user when emergency situations involving radioactive material occur. These situations could involve the theft of the radiographic equipment, loss of control, an accident that damages or destroys the radiographic equipment, the loss or damage to the technician's individual monitoring device, or the accidental exposure of workers. Also, describe the actions to be taken by the RSO when emergency situations occur.
5. Recordkeeping Provide a description of all records that will be maintained to document operations at permanent and temporary job sites involving the use of radioactive material. Records should include, but not be limited to: Receipt, transfer, and disposal; Leak tests; Utilization logs; Individual monitoring reports; and Training.
6. Equipment Maintenance and Inspection Procedures Describe routine maintenance and inspections to be performed on the radiographic exposure device, indicating what items are to be checked, the documentation of and specific intervals for the maintenance and/or inspections to be performed.
7. Handling and Using Sealed Sources and Radiography Exposure Devices
 - a.** Provide a description of the handling procedures to be used when removing radioactive material from storage, transporting or using it in the field, and returning it to the storage location. Describe the procedures for removing the device from storage and recording the information on a utilization log, including the identification of the device (model and serial number), the date removed from storage, the name (or initials) of the person taking the device from storage, and the location of use.

IV. CONTENTS OF AN APPLICATION (Continued)

b. Procedures should also describe the step-by-step use of source changers, if applicable. Many source changers have similar design and use characteristics; however some changers differ substantially from the norm.

8. Method and Occasions for Conducting Radiation Surveys Identify the conditions under which surveys are made, the items which are surveyed, and the radiation levels which are acceptable.

9. Methods for Controlling Access to Radiography Areas Provide separate instructions for permanent radiographic facilities and temporary job site operations.

a. *Permanent radiographic facilities*

Include instructions in the use of control devices and warning devices that are incorporated into the facility. For permanent radiographic installations, provide instructions concerning posting the entrance to the facility with "Caution (or Danger) High Radiation Area" signs and provide procedures to ensure that the system is operable. [See 25 TAC §289.255(q).]

b. *Temporary job site operations*

Provide specific instructions regarding the access control to radiation areas to include the primary method of area access control. A perimeter or boundary should be established. For radiography operations at temporary job sites, in addition to the ropes, signs, tapes, and barriers, radiography personnel shall keep the perimeter of the restricted area under continuous surveillance. It is acceptable to post the perimeter of the restricted area rather than the perimeter of the radiation area. If an unauthorized individual enters the radiation area the source shall be returned to the shielded position.

c. *Instructions required in all operations*

Specify procedures to be implemented in the event that unauthorized personnel enter the restricted area. Instruct personnel to post "Caution (or Danger) Radiation Area" signs at the calculated 5 mR in one hour radiation level and to make a confirming survey after the source has been exposed. Do not include instructions for a confirming survey of the high radiation area perimeter, since such a survey could lead to unnecessary exposure of personnel.

10. Methods and Occasions for Locking and Securing Sources of Radiation Include in your procedures instructions for the locking and securing of sources and devices, including storage containers and source changers, at both permanent and temporary job sites. Situations requiring the physical locking or securing of a source of radiation include; prior to be transported, stored at any given location, permanent radiographic installations and when the radioactive source is returned to the shielded position within the radiographic exposure device.

11. Underwater Radiography - (if applicable)

a. No licensee is permitted to perform underwater radiography unless specifically authorized to do so by the conditions of their radioactive materials license.

IV. CONTENTS OF AN APPLICATION (Continued)

b. Provide procedures for the following topics:

- (i)* Personnel Monitoring
 - (I) Pocket dosimeter
 - (A) Sealed capsule
 - (B) Charging procedures
 - (C) Location to be worn
 - (D) Recording of readings
 - (II) Film badges – Sealed capsule
- (ii)* Film badges - Sealed capsule
 - (I) Sealed capsule
 - (II) Presetting meter
 - (III) Care, calibration and maintenance
- (iii)* Posting and Area Restrictions
 - (I) Specific restrictions for underwater use
- (iv)* Exposure Procedures
 - (I) Two man crews
 - (II) Procedures for actual exposure
 - (III) Survey after procedures
 - (IV) Return of source to surface
- (v)* Underwater Transport (if applicable)
 - (I) Procedures for transportation of the sources underwater
 - (II) Methods for servicing the source for underwater transport
- (vi)* Inspection and Maintenance
 - (I) Check-off list of all equipment for underwater use
 - (II) Abnormal surface radiation
 - (III) Deviation from normal operating characteristics
 - (IV) Check of shutter mechanism daily
 - (V) Binding or scraping of shutter mechanism
 - (VI) Any damage to device noted
 - (VII) Proper operation of locking mechanism
 - (VIII) Device and controls treated with water displacement lubricant prior to each submarine and after each submersion
 - (IX) Exposure devices returned to the manufacturer periodically for repair and maintenance
 - (X) Records shall be kept of all maintenance and repair
- (vii)* Divers who are assisting in the performance of underwater radiography shall be trained in radiation safety if they are not already trained radiographers.
- (viii)* Divers should not carry exposure devices while ascending or descending. Exposure devices should be carried in a basket.

IV. CONTENTS OF AN APPLICATION (Continued)

- (ix) Cobalt-60 sources with activities in excess of 20 curies (740 GBq) and Iridium-192 sources with activities greater than 100 curies (3.7×10^{-3} GBq) should not be used.

12. Lay-Barge and Offshore Platform Radiography - (if applicable) Procedures for lay barges and offshore platform radiography shall address the following:

- a. Protection of personnel in birthing spaces.
- b. Scatter radiation from the radioactive source.
- c. The use of collimators for all sources.
- d. Establishment of restricted areas by the radiographer.
- e. Storage parameters, precautions, and procedures.
- f. Cobalt-60 sources with activities in excess of 20 curies (740 GBq) and Iridium-192 sources with activities greater than 100 curies (3.7×10^{-3} GBq) should not be used.
- g. Unique transport procedures.

Item 10 - RADIATION DETECTION INSTRUMENTATION

Identify survey instruments to be used in industrial radiography by the manufacturer, model, range and types of radiation detected. Title 25 TAC §289.202(p) requires that the licensee maintain a sufficient number of calibrated and operable survey meters to make all required physical radiation surveys. Title 25 TAC §289.255(j)(1) requires that instruments have a range sufficient to measure 2 millirem (20 Sv) per hour through 1 rem (10 Sv) per hour.

If an applicant desires to be authorized to calibrate radiation survey instruments, all items listed in Regulatory Guide 5.2, "Guide for the Preparation of Survey Instrument Calibration Applications", shall be submitted in detail for evaluation.

NOTE: For additional detailed information about survey instrument calibration, refer to ANSI N323-1978, "Radiation Protection Instrumentation Test and Calibration."

Item 11 - LEAK TESTING

Sealed sources shall be leak tested every six months [§289.201(g)]; describe the method to be used for leak testing.

Item 12 - TRAINING AND EXPERIENCE

Title 25 TAC §289.255(u)(1)(B)(i) requires that you submit as part of your application a schedule or description of your program for training radiographers and radiographer trainees. Title 25 TAC §289.255(e) provides further requirements for permitting individuals to act as radiographer trainees, radiographers and radiographer trainers. In the training program description include the sequence of events from the time of hiring through the designation of individuals as radiographer trainees, radiographers and radiographer trainers. Since 25 TAC §289.255(e)(1) and (2) have specific training requirements for radiographers trainees and radiographers, clearly differentiate between the training program for radiographer trainees and that for radiographers. In addition, differentiate between the training and examination given to individuals with no previous training and experience and that given to individuals with previous training and experience.

IV. CONTENTS OF AN APPLICATION (Continued)

Radiation Safety Training Course - Training of personnel in the topics covered in 25 TAC §289.255(x)(1) shall be performed by an agency-accepted radiation safety training course. Provide the name of the company that will provide this training for your personnel. If the applicant proposes to provide this training, the following information should be provided:

1. A detailed outline of each topic to be covered in the course. Be sure that, as a minimum, the topics listed in 25 TAC §289.255(x)(1) are covered. Also, include the amount of time spent on each topic. This safety course requires at least 40 hours of classroom instruction.
2. Submit a description of each demonstration to be provided in the course.
3. If any equipment or visual aids are used, provide a description. These may include filmstrips, video tapes, movies, dummy sources, survey instruments, and handling equipment.
4. Provide a copy of any books, training manuals, workbooks and/or hand-outs used in the course. If these books, training manuals, and/or workbooks are available commercially, you may provide the title, author(s), and publishing company.
5. Indicate the passing grade of the examination. Describe the reinstruction to be given to individuals who have unsuccessfully passed the examination. Clearly indicate that the test submitted is a sample only and that the test will be changed periodically at a stated minimum frequency. In addition, the applicant shall provide a description of the security measures taken within the applicant's organization to protect the examinations and answers. The examination should contain at least 3 questions on each topic addressed in 25 TAC §289.255(x)(1) to ensure that the student has demonstrated an understanding of each topic.
6. Furnish the agency with a copy of the certificate that will be presented to each individual who successfully completes the training course.
7. Instructor Qualifications
 - a. Identify the individuals who will instruct in the classroom, and the topics in which they will provide instruction.
 - b. Submit specific information about the qualifications of these individuals, including where, when, and by whom they were trained in the principles of radiation and radiation safety and in the actual performance of industrial radiography. The person who instructs individuals in the classroom should have knowledge and understanding of the radiation safety principles beyond that obtainable in the course given to prospective radiographers.

On-the-job Field Training - Provide a commitment that on-the-job training will be for a minimum of 200 hours of active participation in radioactive materials industrial radiographic operations. Attention should be paid to the definitions of "on-the-job training" and "radiographic operations" found in 25 TAC §289.255(c).

In-House Training and Testing on Company Procedures and Equipment - Clearly indicate that these testing and training prerequisites will be administered to all radiographers (new hire and previously qualified radiographers) before the use of radioactive material is authorized.

IV. CONTENTS OF AN APPLICATION (Continued)

1. Provide a description of the practical examination given to prospective radiographers. The examination should be given in the field and demonstrate the radiographer's knowledge and competence in using sources of radiation, radiographic exposure devices, associated equipment, handling tools and radiation survey instruments.
2. Provide a description of the training provided to radiographers for understanding the requirements contained with 25 TAC §289, license conditions and the operating, safety and emergency procedures. Also, describe the oral or written examination given to verify the understanding of this material.

Annual Refresher Training - Provide procedures of the completion of annual refresher training, including topics to be discussed, and who will conduct this training.

Item 13 - WASTE DISPOSAL

The applicant must describe how the radioactive material will be disposed of when it is no longer needed or can no longer be used. Disposal of radioactive material must meet the requirements of §289.252(cc). Waste disposal can usually be accomplished by returning sources to the manufacturer. The regulations also require the licensed material contained in radiographic devices (the depleted uranium shielding) be disposed of by transfer to an authorized recipient. Disposal options also include the original supplier, 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 radioactive material. All records of receipt, transfer, and disposal and survey records pertaining to these actions shall be retained for DSHS inspection.

Item 14 - FINANCIAL QUALIFICATION AND FINANCIAL ASSURANCE

Refer to 25 TAC §289.252(gg) to determine if financial assurance must be provided. Unless license authorizations include large amounts of long-lived radioactive material (i.e., half-life greater than 120 days), financial assurance is not required and financial qualification can be established via self-attestation on RC Form 252-1, Business Information Form. To self-attest, complete all applicable areas on the form and mark the first box at the bottom of page 1.

Item 15 – CERTIFICATION

The application must be dated and signed by a representative of the corporation or legal entity who is authorized to sign official documents and to certify that the application contains information that is true and correct to the best of the applicant's knowledge and belief. All unsigned applications will be returned for proper signature.

Submit a completed RC Form 252-1 (Business Information Form) with the application.

Mail the completed application, all attachments and the new license application fee to:

Texas Department of State Health Services
Radioactive Material Licensing – MC 2003
P.O. Box 149347
Austin, Texas 78714-9347

V. LICENSE RENEWAL

Absent any actions by the department or the licensee, a license remains in effect for ten years. An application for license renewal must be received by the department. This filing will ensure that the license does not expire until final action on the application has been taken. Because of advances in radiation safety techniques, changes in operations during the term of the license and DSHS rule changes, a complete renewal application must be submitted like the original application. For personnel added since the license was issued, a statement must confirm that the training and experience of new workers is in accordance with Item 12 of the application. If the application has made any changes in the training program, address those changes in Item 12 of the application. DSHS should be contacted directly for assistance in answering questions concerning the renewal and the procedure for addressing specific items.

Submit a completed RC Form 252-1 (Business Information Form) with the application.

Mail the completed application and all attachments to:

Texas Department of State Health Services
Radioactive Material Licensing – MC 2835
P.O. Box 149347
Austin, Texas 78714-9347

VI. LICENSE AMENDMENT OR TERMINATION

A. AMENDMENT

1. Submit an amendment request by letter, rather than on an application form. Always reference your license number when corresponding with DSHS. Amendments submitted on an application form may cause a processing delay.
2. Specify exactly what you want changed on the license. Always furnish a justification for the request.
3. Plan ahead whenever possible. For instance, if you have placed a bid on a job and know that an amendment to the license will be required (i.e., new storage/use location, additional radioactive material, etc.), forward your request for amendment to DSHS immediately. **PLEASE DO NOT WAIT** until after you are awarded the contract to request an amendment.
4. Send your amendment to the Industrial Licensing Program at the following address:
Texas Department of State Health Services, Radioactive Material Licensing – MC 2835, P.O. Box 149347, Austin, Texas 78714-9347.
5. You will receive your license amendment by mail.
6. Always submit the request in duplicate, including attachments. For licensees with more than one permanent use/storage facility listed on the license or for amendment requests, you may be asked to submit more than two copies of your request. If you are asked to submit several additional copies of the request to the department, it would be advantageous to always submit that requested number of copies with future amendment requests.

VI. LICENSE AMENDMENT OR TERMINATION (Continued)

7. Send routine amendment requests separately from amendment requests that are more complex. For example, if you are changing RSO and also need to release a permanent storage/use facility for unrestricted use, you should submit each request in separate letters. Many times DSHS will perform a confirming close-out survey of your facilities before they are authorized to be released for unrestricted use. This will cause a delay in processing the requested RSO change.
8. If you have a license and a certificate of registration (an authorization for the use of X-Ray Machines) or multiples of either, always submit the changes that affect the radioactive material license to the Industrial Licensing Program and changes that affect the certificate of registration to the Industrial Registration Program. Submit changes that affect both documents to each program as separate requests.
9. When requesting the relocation of a permanent storage/use facility, note that the new facility must be authorized on the license before relocation can occur. After the amendment is issued and you have relocated to your new facility it is important that you submit a request to terminate the former facility. This request should be accompanied by a close-out radiation survey [§289.202(ccc)] or last leak tests record.
10. The department will accept facsimile transmissions as a formal request for amendment. The fax number is (512) 834-6690. Please limit facsimiles to no more than ten pages, thus originals need **NOT** be sent by regular mail.

B. TERMINATION

1. To terminate your license, the department requires the following.
 - a. Request should specify that you want to **terminate** the license.
 - b. Copies of surveys (or current leak tests) required by §289.202(p), if applicable.
 - c. All fees shall be paid/current. Not paying your biannual fee does **NOT** automatically terminate your license.
 - d. Documentation of radioactive material disposition and radiation surveys (or current leak tests) required by §289.252(l)(4)(C).
 - e. All Notices of Violation shall be resolved through the DSHS Policy/Standards/Quality Assurance's Radiation Group.
2. DSHS reserves the right to conduct a confirming radiation survey and facility evaluation prior to the release of controlled areas for unrestricted use. It is the licensee's responsibility to decontaminate facilities to levels allowing release for unrestricted use. If residual radiation levels or contamination levels exceed the applicable release limits contained in §289.202, your license will not be terminated until release limits have been met.

Mail the license amendment or termination requests and any attachments to:

Texas Department of State Health Services
Radioactive Material Licensing – MC 2835
P.O. Box 149347
Austin, Texas 78714-9347

You may also fax the license amendment or termination request to:

(512) 834-6690